



# **NEWARK BAY STUDY AREA**

## **ADDITIONAL SITES AND CANDIDATE PRPS FOR THE NEWARK BAY STUDY AREA**

**VOLUME II OF II**

**EVIDENCE CONCERNING:**

**GENERAL CABLE COMPANY**

**PREPARED BY:  
TIERRA SOLUTIONS, INC.**

**SUBMITTED TO:  
USEPA REGION II**

**OCTOBER 18, 2006**



**SITE SAMPLING  
PLAN**

**for the**

**Former Pirelli Cable  
Corporation Facility in  
Bayonne, New Jersey**

*Prepared For:*

New Jersey Department of  
Environmental Protection (NJDEP)  
401 East State Street  
Trenton, New Jersey 08625-0402

and

Texaco, Inc.  
Old Glenham Road  
Glenham, New York 12527-9999

*Prepared By:*

KEMRON Environmental Services, Inc.  
8150 Leesburg Pike, Suite 1200  
Vienna, Virginia 22182

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Section 1  
INTRODUCTION

## 1.0 INTRODUCTION

KEMRON Environmental Services, Inc. ("KEMRON") has prepared this sampling plan for Texaco Refining and Marketing, Inc. ("Texaco") to address both soil and ground water contamination at the Texaco - Pirelli site located at the intersection of West 1<sup>st</sup> Street and Avenue A in Bayonne, New Jersey. This plan has been prepared using the New Jersey Administration Code (N.J.A.C.) Part 7, Chapter 26E, Technical Requirements for Site Remediation dated July 2, 1999 and the New Jersey Department of Environmental Protection and Energy's Field Sampling Procedures Manual, dated May, 1992.

### 1.1 Purpose

The purpose of this sampling event is to:

- 1) establish a contaminant gradient for the soils at the Texaco-Pirelli site, and
- 2) collect ground water samples from the down-gradient monitor wells to determine if the ground water at the Texaco-Pirelli site is contaminated.

KEMRON has reviewed the soil sampling data from several environmental investigations at the Texaco-Pirelli property (Refer to Appendix A for a table of the documents reviewed by KEMRON). There have been hundreds of soil samples collected and analyzed at the property; however, the sample data does not establish a contaminant gradient which is required in conducting a remedial investigation by N.J.A.C. 7:26E-4.1(b)2.

A decreasing contaminant gradient is established when contaminant concentrations within a given soil boring decrease by 10 percent or more from the initial characterization sample to 2 sequential depth samples. Alternatively, it can be established when the contaminant concentrations within a given soil boring decrease by a factor of 5 between the initial characterization sample and a single delineation sample. By establishing a decreasing contaminant gradient, the approximate extent of the contamination can be extrapolated and therefore limit any remedial actions at the site.

KEMRON reviewed the sample data and found a set of soil sample borings installed during Quest's September 21-22, 1995 sampling event that may be used to establish a concentration gradient at certain locations on the Texaco-Pirelli property. Each of the three soil borings (borings labeled "PR") was sampled and analyzed at approximately 0.5' - 1.0', 1.5' - 2.0' and 2.5' - 3.0' below the ground surface. One of the soil borings had decreasing contaminant concentrations as the depth increased; however, the other two soil borings had increasing concentrations with increasing depths.

The goal of the contaminant gradient is to establish that concentrations of contaminants are decreasing as the depth increases. The PR soil boring results do not conclusively establish a decreasing contamination gradient. In addition, none of the three soil borings were sampled to the ground water table which is beneficial in preparing the remedial investigation report as described in N.J.A.C. 7:26E-4.1(b)3.

During a meeting at the New Jersey Department of Environmental Protection (NJDEP) offices in Trenton, New Jersey between KEMRON, Texaco, North American Realty, and the NJDEP, the NJDEP recommended that ground water samples should be collected at the Texaco-Pirelli property. The ground water sample results will be added to the previous ground water sample results to provide a more complete picture of the ground water at the site.

Section 2  
SUMMARY OF PAST SAMPLING EVENTS

## 2.0 SUMMARY OF PAST SAMPLING EVENTS

The Texaco-Pirelli property has been the subject of many environmental investigations in which both soil and ground water samples have been collected for analysis. The remainder of this section presents a summary of these sampling events.

### 2.1 Soil Events

Based on materials provided to KEMRON by Texaco, there have been 9 soil sampling events and 4 ground water sampling events. Unfortunately, the soil sample results do not completely define the vertical extent of contamination at the property. With some exceptions, the depths of the soil samples typically range from surface soils to sub surface soils approximately 2 feet deep. The soil samples showed concentrations greater than New Jersey's proposed soil cleanup criteria (N.J.A.C. 7:26D, updated May 12, 1999) for volatile organic constituents, base neutrals, dissolved metals, polychlorinated biphenyls (PCBs), and total petroleum hydrocarbons (TPH).

### 2.2 Ground Water Events

The most recent ground water sampling event conducted at the Texaco-Pirelli property was performed in October, 1995. The ground water sampling events have shown concentrations greater than New Jersey's proposed ground water quality standards for Class IIA ground waters (N.J.A.C. 7:9-6, January, 1993) for both dissolved metals and volatile organic constituents. Previous ground water sampling events have also determined ground water flow at the Texaco-Pirelli site.

Refer to Appendix A for a table presenting the reports and sampling events reviewed by KEMRON.



**Section 3**  
**SAMPLING**

### 3.0 SAMPLING

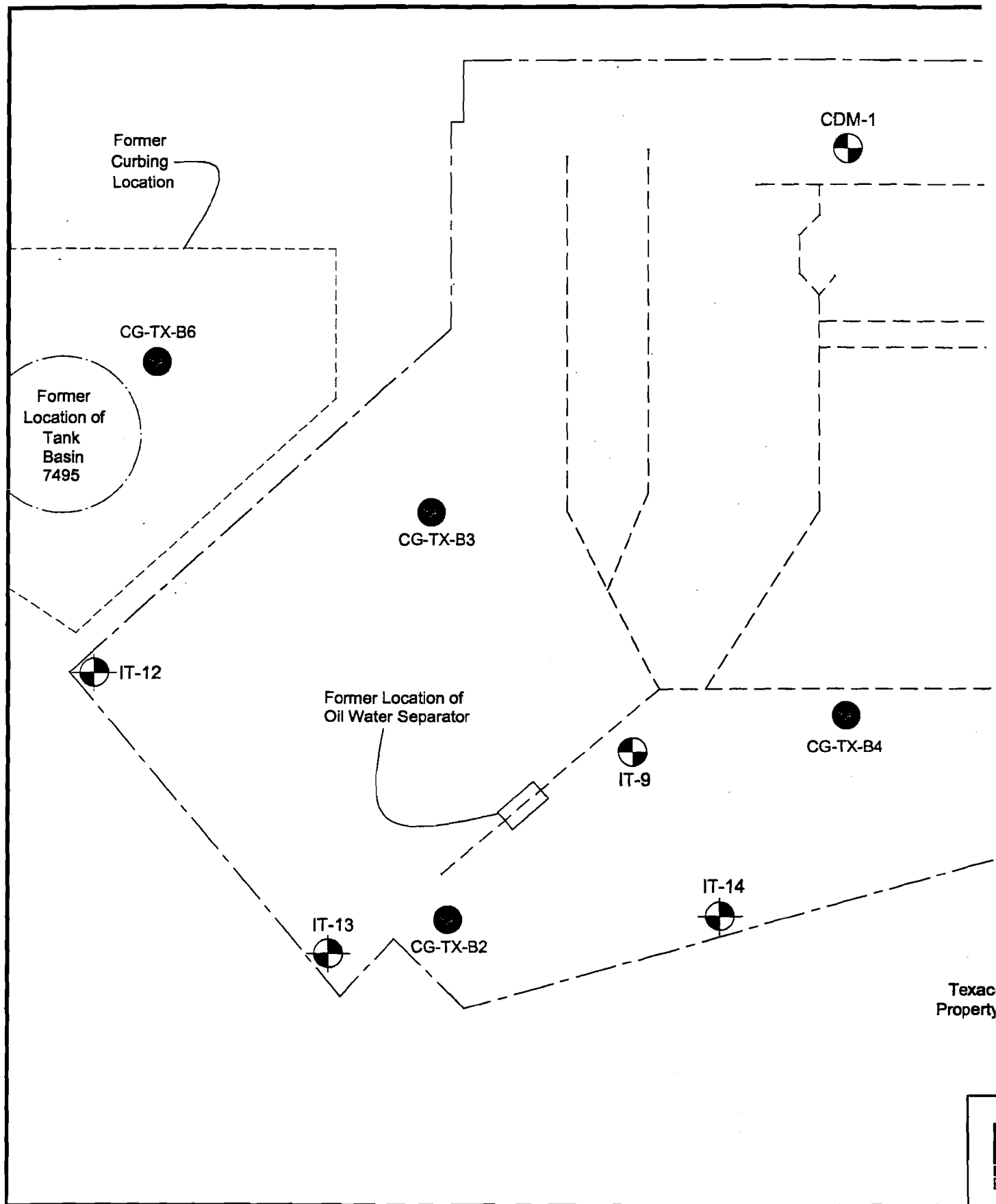
This section describes the proposed additional sampling for the Texaco-Pirelli property. The section discusses proposed soil boring locations, soil sampling methods to be used, and analysis of the collected soil samples. This section also presents the methods used to collect the ground water samples, the selection of the monitor wells to be sampled, and the analytical parameters.

#### 3.1 Soils

The soil investigation reports examined by KEMRON indicated elevated levels of volatile organic constituents, base neutrals, metals, polychlorinated biphenyls (PCBs), and total petroleum hydrocarbons (TPH). These investigations took place from 1988 to 1995. Numerous surface and some sub-surface soil sample data are available; however, a contaminant gradient has not yet been established to delineate the vertical extent of contamination. KEMRON recommends that the minimum number of soil borings be installed at the Texaco-Pirelli property to complete the site investigation requirements outlined in N.J.A.C. 7:26E-3.9(f).

##### 3.1.1 Sampling Methodology

Six soil borings will be installed at the Texaco-Pirelli property which is greater than 10 acres. As described in N.J.A.C. 7:26E-3.9(f), a minimum of 5 borings are required for a site larger than 10 acres. The locations for these soil borings have been selected based on the results of the previous 9 sampling events and will be biased towards the areas of known contamination (refer to Figure 1-1 for the soil boring locations). Refer to Table 1 for a more detailed explanation of the boring locations.



**Table 1. Explanation of Soil Boring Locations.**

<b>Soil Boring Location <sup>1</sup></b>	<b>Reasons for Sampling</b>
CG-TX-B1	A past sampling event (see October 11-12, 1995 event) near this location did not show elevated concentrations of metals. This boring will provide a decreasing concentration gradient for the site soils outside the areas that have shown elevated concentrations of metals. This boring will be located using monitor wells IT-8 and CDM-1.
CG -TX-B2	Past sampling events around this location have shown elevated levels of both metals (particularly lead) and organics. Although this location has not been sampled for volatile organics (VOCs) in particular, it is located downgradient from the former oil/water separator which would be a likely source of VOC contamination. This boring will provide a decreasing concentration gradient for metals and VOCs, and will be located using monitor wells IT-14 and IT-9.
CG -TX-B3	Past sampling events around this location have shown elevated levels of metals concentrations (lead in particular) with a concentration of 54,000 mg/kg of lead recorded at sample location 3-B14 during the Phase III sampling conducted in January, 1991. This boring will provide a decreasing concentration gradient for metals and in particular lead, and will be located using monitor wells IT-12 and IT-9.
CG -TX-B4	Past sampling events have shown elevated levels of total metals (in particular lead), a polychlorinated biphenyl (PCB) Arochlor 1260, and base neutral compounds (BNAs). A lead concentration of 3,700 mg/kg was reported at this location during the initial sampling (1-B14), the PCB Arochlor 1260 was reported during the October 11-12, 1995 sampling event (R6C8), and the BNAs were reported during the March 28-30, 1990 sampling event (2-B24). This boring will provide a decreasing concentration gradient for metals, PCBs, and BNAs, and will be located using monitor wells IT-14 and IT-9.
CG -TX-B5	Past sampling events have shown elevated levels of total metals and total petroleum hydrocarbons (TPH). The TPH was reported at locations 1-B4 and 1-B9 during the initial sampling event in July, 1987 and the metals were reported in 1-B4 and 1-E1 during the July, 1987 and December, 1987 sampling events. This boring will provide a decreasing concentration gradient for metals and TPH, and will be located using monitor wells CDM-1 and IT-8.
CG -TX-B6	Past activities at the neighboring Texaco Refining property, in particular the investigation of Tank Basin 7495 revealed elevated levels of lead. It is believed the Texaco-Pirelli property is the likely source of the lead reported around Tank Basin 7495. Since the likely source is the Texaco-Pirelli property, this boring is proposed to become part of this site sampling plan and, if necessary, any additional remedial activities. This boring will provide a decreasing concentration gradient for metals and will be located using monitor wells IT-12 and CDM-1.

<sup>1</sup> See Figure 1.1 for the boring locations.

The soil borings will be installed using Geoprobe direct push technology. Soil samples will be continuously collected in discrete six-inch increments from the soil borings as required in N.J.A.C. 7:26E-3.6(a)5. Since the purpose of this event is to establish a contamination gradient, all collected soil samples within a soil boring will be analyzed for identical analytes. The analysis for the samples in each boring as well as the soil boring locations have been "biased" [as

recommended by N.J.A.C. 7:26E-3.9(f)1] based on the previous 9 sampling events (refer to Table 2 for the coordination of analysis methods with each proposed soil boring). The total depth for each soil boring is to the ground water table or refusal, if encountered.

**Table 2. Soil Boring Sampling Summary Table**

Location <sup>1</sup>	Depth to Ground Water (ft) <sup>2</sup>	Sample Depths (ft) <sup>3</sup>	Parameters	Sampling Method
CG-TX-B1	5.0	0.0 - 0.5 0.5 - 1.0 1.0 - 1.5 1.5 - 2.0 2.0 - 2.5 2.5 - 3.0 3.0 - 3.5 3.5 - 4.0 4.0 - 4.5 4.5 - 5.0 5.0 - 5.5	Total Metals	GeoProbe
CG-TX-B2	5.9	0.0 - 0.5 to 5.5 - 6.0	Total Metals Volatile Organics	GeoProbe
CG-TX-B3	6.0	0.0 - 0.5 to 5.5 - 6.0	Total Metals	GeoProbe
CG-TX-B4	5.9	0.0 - 0.5 to 5.5 - 6.0	Total Metals Polychlorinated Biphenyls Base Neutrals	GeoProbe
CG-TX-B5	5.0	0.0 - 0.5 to 4.5 - 5.0	Total Metals Total Petroleum Hydrocarbons	GeoProbe
CG-TX-B6	5.0	0.0 - 0.5 to 4.5 - 5.0	Total Metals	GeoProbe

<sup>1</sup> See Figure 1.1 for the boring locations.

<sup>2</sup> See most recent Purge Log for Monitor Well data

<sup>3</sup> Based on depth to ground water found in the purge log; depth may increase/decrease due to ground water depth or refusal.

A soil classification log will be created for each installed boring and will include the following information:

- date, time, and weather conditions,
- sampler, geologist or soil scientist name(s),



are collected by pouring demonstrated analyte free water provided by the laboratory over the field-decontaminated sampling equipment and collecting the water in the appropriate type and number of sample jars to perform the appropriate analysis. In the case of soil sampling, the field blank will be collected from the Geoprobe's soil sampler.

According to New Jersey's May, 1992 Field Sampling Procedures Manual, no trip blanks are required for non-aqueous samples such as soil. However, as required by the methanol extraction method, one trip blank will be included with the soils collected for VOC analysis. Refer to Appendix B for the methanol extraction procedures.

### **3.1.4 Sample Handling and Holding Times**

Field blank samples must travel with sample containers and must arrive on site within one day of their preparation in the lab. Blanks and their associated samples may be held on-site for no longer than two calendar days, and must arrive back in the lab within one day of shipment from the field. Blanks and all samples must be maintained at 4 degrees C while stored on-site and during shipment. Sample bottles and blanks must be handled in the same manner prior to their return to the laboratory.

The clock concerning holding times for samples and blanks analyzed by Contract Laboratory Program (CLP) methodologies begins when the sample is received in the laboratory as documented on the laboratory's chain of custody form. Holding times are dictated by the specific analytical method being used.

### **3.1.5 Decontamination of Field Sampling Equipment**

The sampling equipment being used will be a Geoprobe direct push technology soil sampler. As required in the New Jersey Field Sampling Procedures Manual, field decontamination of the Geoprobe rods and sampler will be necessary. The field decontamination will involve:

- 1) laboratory grade glassware detergent and tap water scrub to remove visual contamination,
- 2) generous tap water rinse, and
- 3) distilled and deionized (ASTM Type II) water rinse.

No other field decontamination will be necessary during the soil sampling portion of this sampling event.

### 3.1.6 Disposal of Additional Soil Material and Decontamination Waters

Any remaining soil material will be placed in the boring hole which will then be filled with bentonite clay pellets. The decontamination waters will be evaluated using a Photoionization Detector (PID) or a flame ionization detector (FID) and if above 5 parts per million (ppm) will be containerized for appropriate handling and disposal. Decontamination waters below 5 ppm will be re-applied directly to the ground surface and permitted to percolate back into the ground water system. The remaining waters (greater than 5 ppm) will be appropriately treated and disposed of.

## 3.2 Ground Water

The ground water reports examined by KEMRON have revealed very few contaminants within the ground water at the site. However, some of the ground water samples, including the most recent October, 1995 data, have shown elevated levels of some volatile organics and dissolved metals. None of these studies have re-sampled the ground water as per the requirements of N.J.A.C. 7:26E3-7(e) which will confirm if ground water contamination exists. Past ground water studies do not indicate the presence of a petroleum sheen.

As part of this sampling plan, one round of ground water samples will be collected from monitor wells IT-12, IT-13, and IT-14 (refer to Figure 1.1 for monitor well locations). The sampling will begin with the least contaminated monitor well, IT-12, followed by IT-13, and finish by sampling well IT-14, the most contaminated of the three wells. These wells are all located downgradient from the area of concern. Previous studies [International Technology Corporation (IT), August, 1992] have determined that ground water flows primarily from north to south with some flowing north to southeast and north to southwest. The most recent ground water data for the Texaco-Pirelli site was collected in October, 1995.

### 3.2.1 Sampling Methodology

The low flow sampling methodology will be used to both purge and sample the ground water from the three monitor wells. The low flow collection method attempts to simulate the aquifer conditions by pumping ground water from the monitor well at a flow rate comparable to the aquifer's recharge rate. This is accomplished by setting the intake velocity of the sampling pump to a flow rate that limits drawdown inside the well casing. By simulating the recharge rate, the ground water is not dissolving any additional sediments or other aquifer material.

Under low-flow sampling conditions, the colloids (suspended solids) are considered representative of the natural conditions of the aquifer and not a product of the sampling procedure or well construction (Giles, 1997). For this reason analytical results for metals testing

using low-flow sampling are considered to be representative of the total mobile contaminant load in the aquifer (Nielson Environmental School, 1997). Refer to Appendix C for copies of monitor well installation documents for monitor wells IT-12, IT-13, and IT-14 as well as purge and sample log documentation.

### *Equipment Types*

A Grundfos Readiflo 2 model sample pump (referred to as "sample pump" for the remainder of this document) with 1/4" teflon tubing will be used to perform the purging and sampling. This sampling pump is an electric submersible type. The Horiba U-22 Water Quality Monitoring System, an in-line water quality measurement device (e.g., flow-through cell), will be used to monitor pH, dissolved oxygen, conductivity, temperature, and turbidity. An ORS Environmental oil/water interface probe will be used to monitor the water level depth, assess any sheen (not anticipated during this sampling event), and measure to the total depth of the monitor well.

### *Initial Field Measurements*

Prior to purging and sampling the ground water from the monitor wells, several field measurements must be collected which are:

- date, time, and weather conditions,
- diameter of the outer protective casing,
- well number and well permit number,
- photoionization detector (PID) or flame ionization detector (FID) reading taken from the well prior to and immediately after the cap is removed,
- diameter of the outer protective casing,
- inner diameter and construction material of the inner well casing,
- depth from the top of the casing to the top of the well screen (to the nearest 0.01 foot),
- depth from the top of the casing to the water level (to the nearest 0.01 foot),
- thickness of any floating product,
- pH, dissolved oxygen, temperature, and specific conductance.

These readings are entered onto the ground water sampling log form (refer to Appendix D for a copy of this sheet). An oil/water interface probe is used to determine any floating product on top of the water in the monitor well. After progressing through any product (none is expected during sampling), the probe reads the water level in the monitor well.

### *Monitor Well Purging*

The sample pump and associated tubing will be installed at the pump intake depth, which will vary between the monitor wells but is defined as the middle or toward the top of the screened interval of the well (Puls et al, 1996). This sample pump intake level will be noted on the ground water sample log sheet. The Horiba U-22 Monitoring System will be placed in the monitor well at the sample pump intake level to measure the water quality parameters. Both of these sampling devices will be lowered slowly to minimize excessive mixing of the stagnant water in the casing above the screened interval with the screened interval zone water and to minimize resuspension of solids which will have collected at the bottom of the well. The key is to minimize disturbance of water and solids in the well casing (Puls et al, 1996).

The ORS Environmental oil/water separator probe will be placed at the water level to monitor the drawdown effect during purging. The goal is to have minimal drawdown during purging (not more than 0.3 feet).

The sample pump will be started and adjusted to pump at a flow rate between 250 ml/min and 500 ml/min as recommended by the United States Environmental Protection Agency (USEPA) Region 2 low flow sampling procedure. The flow rate will be measured initially to assure the 250 ml/min to 500 ml/min flow rate using a graduated cylinder and a stopwatch.

After starting the sampling pump, the water quality parameters pH, dissolved oxygen, conductivity, temperature, and turbidity will be monitored every five minutes using the Horiba U-22 Water Quality Monitoring System. The flow rate will be checked every five minutes using a graduated cylinder and a stopwatch, and the water level will be monitored every five minutes to make sure it does not drop 0.3 feet. If the flow rate is above 500 ml/min, corrective actions will be taken to decrease the flow rate immediately. Similarly, if the water level drops below 0.3 feet, the flow rate will be checked and lowered to prevent drawdown from occurring. Each flow rate adjustment will be noted on the ground water sampling log sheet.

Purging is complete after the water quality parameters have stabilized which is defined as 1)  $\pm 0.1$  for pH, 2)  $\pm 3$  % for conductivity, and 3)  $\pm 10$  % for dissolved oxygen and turbidity for three consecutive five-minute interval readings (Puls et al., 1996). The sample pump will not be removed between purging and sampling. Refer to Section 3.2.6 for an explanation of purge water handling and disposal. Table 3 below presents a summary of the purge information.

**Table 3. Monitoring Well Purge Information.**

Well Number	Purge Flow Rate (ml/min)	Pump Intake Level (ft) <sup>1</sup>	Screened Interval Range (ft) <sup>2</sup>	Indicator Parameters (IPs)	Frequency of IP Collection
IT-12	250 - 500	6.0 - 6.5	3 - 10	pH, Conductivity, Dissolved Oxygen, and Turbidity	5 minutes
IT-13	250 - 500	7.0 - 7.5	4 - 11	pH, Conductivity, Dissolved Oxygen, and Turbidity	5 minutes
IT-14	250 - 500	6.7 - 7.2	4 - 10.5	pH, Conductivity, Dissolved Oxygen, and Turbidity	5 minutes

<sup>1</sup> Refer to Puls et al, 1996, Section III.<sup>2</sup> Taken from the Monitoring Well Installation Logs found in Appendix C.*Post Purging Field Measurements*

After purging the monitor well, some field readings will be taken and entered onto the ground water sampling log form. These field parameters are:

- the purging start time and end time,
- purging device used (for this event the pump type and tubing type will be listed here),
- purge rate (arithmetic average of purging flow rates),
- total volume of water purged (estimated),
- the depth from the top of the casing, including measuring point reference marking, to the water level before and after purging (to the nearest 0.01 foot), and
- pH, dissolved oxygen, temperature, and specific conductance at the conclusion of purging.

*Pre-Sampling Field Measurements*

Prior to collecting the ground water samples, the depth from the top of the casing to the water level (to the nearest 0.01 foot) will be measured and recorded onto the ground water sampling log form.



*Collection of Ground Water Samples*

Sample containers of the proper size and composition will be provided and pre-cleaned by the laboratory. Since the sample pump and tubing remained in the monitor well, the ground water samples will be collected using the sampling pump with the flow rate set between 100 ml/min and 250 ml/min at each monitor well (USEPA - Region II). The water level will be monitored using the ORS Environmental oil/water interface probe to prevent excessive drawdown (greater than 0.3 feet).

Sample start and end times will be recorded onto the ground water sampling log form. Refer to Table 4 for monitor well sample number, depth to ground water, sample pump type, sample pump flow rate, sample pump intake level, and analysis parameters. The sample pump intake depth will match the purge intake depth.

The ground water samples will be collected using the following hierarchy:

- Volatile Organics (VOCs), and
- Dissolved Metals.

The ground water samples will immediately be placed into a sample cooler with bagged ice to maintain a temperature of 4 degrees C.

**Table 4. Ground Water Sampling Summary Table**

Monitor Well Number	Depth to Ground Water (ft) <sup>1</sup>	Sample Method	Pump Flow Rate (ml/min) <sup>2</sup>	Pump Intake Level (ft) <sup>3</sup>	Parameters
IW-12	6.0	Sample Pump	100 - 250	6.0 - 6.5	Volatile Organic Constituents Dissolved Metals
IW-13	5.6	Sample Pump	100 - 250	7.0 - 7.5	Volatile Organic Constituents Dissolved Metals
IW-14	6.6	Sample Pump	100 - 250	6.7 - 7.2	Volatile Organic Constituents Dissolved Metals

<sup>1</sup> Taken from the most recent set of purge logs (May, 1992).

<sup>2</sup> Taken from Section V, part 13 of U.S. Environmental Protection Agency, Region II, Ground Water Sampling Procedure Low Stress (Low Flow) Purging and Sampling, no date.

<sup>3</sup> Defined in Section III of Puls et al., Low-Flow (Minimal Drawdown) Ground Water Sampling Procedures, April, 1996. Same as defined in Table 3.

### *Post Sample Collection Field Readings*

At the conclusion of the sampling activities, the sample pump and tubing will be removed from the well and decontaminated (see Section 3.2.5 for decontamination procedures). The tubing will then be properly discarded. After collecting the samples, the total depth of the monitor well from the top of the inner casing (to the nearest 0.01 foot) and the ground water level will be measured and recorded after sample collection. The total depth of the monitor well has been recorded last because the probe may stir up sediments in the monitor well possibly causing additional sediment to be collected with the ground water samples and influencing the results. Both readings will be recorded on the ground water sampling log form.

### **3.2.2 Chain of Custody Forms**

A Chain of Custody (COC) Form will accompany the sampled material at all times. The COC documents the company requesting the analysis, sample label, sampler's initials, sample date, sample time, analysis requested, preservatives used, and any special notes. The COC helps track the delivery of the samples by following the person(s) relinquishing the samples to the person(s) receiving the samples.

### **3.2.3 Quality Assurance/Quality Control Samples**

Field blanks will be collected at a rate of one per day and will be analyzed for the sampled analytes for that day. For example, a field blank will be collected for VOCs and dissolved metals if the ground water samples collected that day are analyzed for VOCs and dissolved metals. Field blanks will be collected by pumping demonstrated analyte free water provided by the laboratory through the field-decontaminated sample pump and collecting the water in the appropriate type and number of sample jars to perform the appropriate analysis. In the case of ground water, a field blank will be collected from the sample pump and tubing. This blank will be collected after purging and sampling monitor well IW-14.

Trip blanks consist of one set of sample bottles filled with laboratory demonstrated analyte free water. Trip blanks accompany the empty sample bottles from the laboratory and then return to the laboratory with the filled sample bottles. At a minimum, the trip blanks must be analyzed for volatile organic parameters. Trip blanks and associated samples shall not be held on site for more than two calendar days. Trip blanks are included at a rate of one per sample shipment.

One sample of the water used in the decontamination process will be collected for dissolved metals and VOC analysis (Puls et al, 1996).

### 3.2.4 Sample Handling and Holding Times

Field blank samples must travel with sample containers and must arrive on site within one day of their preparation in the lab. Blanks and their associated samples may be held on-site for no longer than two calendar days, and must arrive back in the lab within one day of shipment from the field. Blanks and all samples must be maintained at 4 degrees C while stored on-site and during shipment. Sample bottles and blanks must be handled in the same manner prior to their return to the laboratory.

The clock concerning holding times for samples and blanks analyzed by Contract Laboratory Program (CLP) methodologies begins when the sample is received in the laboratory as documented on the laboratory's chain of custody form. Holding times are dictated by the specific analytical method being used.

### 3.2.5 Decontamination of Field Sampling Equipment

The sample pump and associated tubing will be field decontaminated using the following process (USEPA - Region II):

- 1) Pre Rinse: Operate pump in a deep basin containing 8 to 10 gallons of potable water for 5 minutes and flush other equipment with potable water for 5 minutes,
- 2) Wash: Operate pump in a deep basin containing 8 to 10 gallons of a non-phosphate detergent solution, Alconox, for 5 minutes and flush other equipment with fresh detergent solution for 5 minutes. Use the detergent sparingly,
- 3) Rinse: Operate pump in a deep basin of potable water for 5 minutes and flush other equipment with potable water for 5 minutes,
- 4) Final Rinse: Operate pump in a deep basin of distilled/deionized water to pump out 1 to 2 gallons of this final rinse water.

No other field decontamination will be necessary during the ground water sampling phase. If field decontamination of equipment becomes necessary during the ground water sampling event, then appropriate decontamination methods specified in the New Jersey Field Sampling Manual will be used.

### 3.2.6 Disposal of Purge and Decontamination Waters

The decontamination and purge waters will be evaluated using a Photoionization Detector (PID) or a flame ionization detector (FID) and if above 5 parts per million (ppm) will be containerized for appropriate handling and disposal. Decontamination and purge waters below 5 ppm will be re-applied directly to the ground surface and permitted to percolate back into the

ground water system. The remaining waters (greater than 5 ppm) will be appropriately treated and disposed of.

### **3.2.7 Interpretation of the Sampling Results**

The results of the ground water samples will be included with the previous ground water samples collected at the Texaco-Pirelli property. The applicable ground water remediation standard for this property are the proposed ground water quality standards set forth in N.J.A.C. 7:9-6. The results of this sampling event will be included with the previous ground water data to provide a clearer picture of the site's ground water.

Section 4  
LABORATORY REQUIREMENTS



#### 4.0 LABORATORY REQUIREMENTS

KEMRON will select and use a laboratory that is New Jersey certified and is capable of delivering the quality assurance measures as set forth in N.J.A.C. 7:26E-2. The laboratory will provide all sample bottles, preservatives, sample labels, chain of custody, and custody seals. The sample bottles will correspond with the required media type (soil or ground water) and will also correspond to the analyses methods selected by KEMRON. The laboratory will also provide trip blanks, as needed, as well as the materials to collect field blanks from the sampling equipment used.

One of the following laboratories will be used to perform the analysis: 1) KEMRON Laboratories in Marietta, Ohio (New Jersey Certification Number 74004), 2) STL-Envirotech Laboratories located in Edison, New Jersey (New Jersey Certification Number 12543) or 3) Accutest Lab located in Dayton, New Jersey (New Jersey Certification Number 12129). To date, Accutest has performed the majority of the analysis for the Texaco-Pirelli site.

Section 5  
SITE SURVEY

## 5.0 SITE SURVEY

KEMRON field personnel will use measuring tape and the previously surveyed monitor well locations to locate the proposed soil boring locations. Refer to Table 1 for the monitor wells that will be used as reference points for the soil borings. These six soil boring locations will then be recorded in the field log book for future reference. KEMRON field personnel will mark the proposed soil boring locations with a labeled wooden survey stake.

Section 6  
REFERENCES

## 6.0 REFERENCES

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Puls, R.W. and M.J. Barcelona, "Ground water issue. Low-flow (minimal drawdown) ground water sampling procedures", EPA/540/S-95/504, April, 1996.

United States Environmental Protection Agency (USEPA), Region II, "Ground Water Sampling Procedure Low Stress (Low Flow) Purging and Sampling", no date.

Refer to Appendix A for a table of Previous Investigations conducted at the site.

## APPENDICES

Appendix A  
Previous Investigation Summary Table

Doc #	Date	Title	Author	Key Information
T-1	9/27/84	Utility Corridors Present on the Pirelli Property	Unknown	Map showing Utility corridors at the Pirelli property
T-2	7/6/86	General Information Submission and Site Evaluations Submissions	IT Corp: Edison, NJ	Appendix C presents the Sampling and Analysis Plan for the Phase I sampling: Description of Pirelli Operations: Site Map: Pirelli Spill
T-3	9/87	Report on the Execution of the Sampling and Analysis Plan	IT Corp: Edison, NJ	Phase I Soil Data results: the enclosed maps present the locations of on-site structures: Soils TPH and Lead (primarily 18-24", but some 0-6" and 6-12")
T-4	1/88	Conceptual Cleanup Plan (2 copies - one bound and one unbound)	IT Corp: Edison, NJ	Sampling and Analysis of Soil (TPH and Lead) and Ground water (IT-8 and IT-9 for Lead): Boring E (around Boring B-9) 12-18" and 18-24", and Background Boring Samples collected: Call this Phase IA
T-5	6/89	Final Cleanup Plan, Volume I (Sections 4, 6, and 7)	IT Corp: Edison, NJ	Summary of Soil Investigations to date: ID potential sources of the Lead: ID some USTs: Cite the decreasing concentration of the Lead with increasing sample depth (no shallow soil results): Summary of Ground water investigation to date: Est. Soil Cleanup Levels for Lead and TPH
T-6	5/4/90	Laboratory Data - ground water samples collected on 4/6/90 (2 copies)	National Environmental Testing, Inc. (NET): Thoughfare, NJ	Report # 90-1019: ground water sample results (IT-12, IT-14, IT-13, IT-9, IT-8, and CDM-1)



Doc #	Date	Title	Author	Key Information
T-7	5/9/90	Laboratory Data - soil samples collected on 3/31/90 (2 copies)	National Environmental Testing, Inc. (NET): Thoughfare, NJ	Report # 90-0959: soil sample results: HA soil sample series
T-8	5/9/90	Laboratory Data - soil samples collected on 3/31/90 (2 copies): continued	National Environmental Testing, Inc. (NET): Thoughfare, NJ	Report # 90-0959: soil sample results: HA soil sample series (continued)
T-9	8/90	Results of Phase II Sampling and Analysis	IT Corp: Edison, NJ	Phase II sampling results: Soil (TPH, Lead, BN, VOCs) hand augured, Ground water (IT-8, -9, -10, -12, -13, -14, and CDM-1) TPHC, dissolved metals, BN, VOCs): Monitor Well logs (IT-8, -9, -12, -13, and -14) and well survey: Maps presenting sample locations for phase I and II samples as well as proposed phase III samples
T-10	1/91	Contingency Cleanup Plan - Volume II Analytical Results (2 copies)	Accutest: Dayton, NJ	Analytical Data Package Round III - Soil Samples collected on 9/21/90: 3B series (see T-11 Figure 2 for sample locations)
T-11	4/91	Contingency Cleanup Plan, Volume I Phase III Soil Sampling Plan and Results	IT Corp: Edison, NJ	Phase III Soil Sampling Plan and Results: Figure 3 presents summary of Ph. I through Ph. III samples and MW locations for metals: Figure 4 presents summary of Ph. I to Ph. III samples and MW locations for TPH (Good Figures)

Doc #	Date	Title	Author	Key Information
T-12	11/91	Preliminary Remedial Design Report and Phase V Sampling Plan	IT Corp: Edison, NJ	Tables of Data for Phase I through Phase IV including Phase IV soil screening: No text or Figures on the Phase IV soil samples or soil screening samples: Proposed Phase V (?)
T-13	6/3/92	Laboratory Data - Priority One Testing Laboratory (2 Copies)	Priority One: South Kearny, NJ	Ground Water Samples collected on 5/5/92
T-14	8/92	Ground Water Sampling and Analysis Report (May, 1992 Sampling Event)	IT Corp: Edison, NJ	Presents Hydro geology in section 3, document presents GW sampling results for the entire Texaco property not just the Pirelli side: Pirelli wells are CDM -1, IT-8, IT-9, IT-12, IT-13, & IT-14: Good document for ground water sampling
T-15	10/5/95	Soil and Ground Water Sampling	Quest: Annandale	Soil Sampling results ( R series) primarily for 0.5' - 1' (Lead, copper, zinc, and some PCBs): Ground water Flow Interpretation Figure
T-16	3/2/96	Estimation of Soil Remediation Costs - Letter Proposal (2 Copies)	Quest: Annandale, NJ	
T-17	3/10/97	Capping Scenarios and Potential Future Site Uses - Letter Proposal including costs	Quest: Annandale, NJ	
T-18	9/14/98	Request for Proposal	TEXACO, Inc:	Presents a summary of present site conditions: Appendix A contains Soil Boring Log from site Monitor Wells: Maps of soil contamination for Lead, Copper, and Zinc

Doc #	Date	Title	Author	Key Information
T-19	9/98	Proposal	KEMRON: Vienna, VA	See Section 2 for the proposed remedial strategy
T-20	unknown	Property Boundary Definition	Unknown	Describes the limits of property - not sure if the original TEXACO property and the Pirelli property are segregated
T-21	1981	Aerial Photographs (2) of Property	Unknown	We don't have scale for these photos
T-22	No Date	Attachment 1 - Response to Comments: ECRA Cases #85108 and #86523	Unknown (probably Texaco)	Responses to NJDEP comments to the 1) August 1990 Results of Phase II Sampling and Analysis (T-9), 2) April 1991 Contingency Cleanup Plan (T-11), and 3) General Comments
T-23	1/24/96	Laboratory Analytical Data Deliverables, Soil Sample Results Report	Quest Environmental, Inc.: Annandale, NJ	Section 1 - PR soil samples collected on 9/21/95, Section 2 - PR soil samples collected on 9/22/95, Section 3 - R soil samples collected on 10/11/95 and 10/12/95, Section 4 - R soil samples collected on 10/11/95 and 10/12/95, and Section 5 - PR soil samples collected on 11/21/95 Figures in back pocket presenting Zinc, Lead , and Copper Contaminated Areas.

Appendix B  
Soil Sampling Methods

**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**METHODOLOGY FOR THE FIELD EXTRACTION/PRESERVATION OF SOIL**  
**SAMPLES WITH METHANOL FOR VOLATILE ORGANIC COMPOUNDS**  
**FEBRUARY 1997**

## **1.0 Scope and Application**

1.1 This method describes the container preparation, field sampling and field extraction/preservation procedure to be used in conjunction with the analysis of soil samples for volatile organics. The applicable analytical methods are SW-846 methods 8010B, 8015A, 8020A, 8021A, 8240B and 8260A found in the most recently promulgated edition of USEPA's Test Methods For Evaluating Solid Waste and the most current version of the Statement of Work for Organic Analysis, Multi-Media, Multi-Concentration, USEPA Contract Laboratory Program.

1.2 It is the laboratory's responsibility when analyzing samples obtained by this method to demonstrate internally that all NJDEP soil cleanup criteria for VOC's (last revised on 2/3/94, as contained in the April 1994 NJDEP Site Remediation News, Volume 6, Number 1, pages 13, 17-19) have been achieved. Should a laboratory know or suspect it has inadequate analytical sensitivity to meet any of the cleanup criteria, the laboratory shall not accept any samples unless the Department is notified in advance and the laboratory obtains approval.

## **2.0 Method Summary**

2.1 Soil samples collected for volatile organic analysis must be handled in a manner which will minimize the loss of contaminants due to volatilization and biodegradation. Department experience and open literature indicate that, for the analysis of volatile organic compounds in soil, field extraction/preservation with methanol must be conducted to ensure that contaminants do not degrade or volatilize during sample handling and transport.

2.2 A small diameter soil core sampling device is used to collect a 10 gram (g) soil sample. The sample is extruded into a tared sample container, supplied by the laboratory performing the analysis, containing purge and trap grade methanol and surrogate compounds. The ratio of volume of methanol to weight of soil is 2.5:1. A portion of the methanol extract is combined with organic free reagent water and analyzed by purge and trap GC or GC/MS:

## **3.0 Sample Containers**

3.1 The recommended sample containers are a 60 ml (2 oz.) wide mouth packer bottle, a 60 ml straight sided wide mouth bottle and a 40 ml or 60 ml VOA vial. All sample containers should have

a open-top screw cap and a silicone rubber coated with Teflon<sup>R</sup> septa or other similar sample container. Some similar containers with Teflon<sup>R</sup> lined screw caps have shown to be susceptible to leakage. The type of container used should be tested to ensure leakage will not occur during shipment.

The use of larger volume containers will cause the layer of methanol over the sample to be minimized, making it difficult to extract an aliquot of methanol for analysis.

3.2 The standard 40ml or 60ml VOA vial can be used, but the small mouth may not accommodate some core samplers. The VOA vial is also unstable and susceptible to spillage.

#### **4.0 Sample Container Preparation**

4.1 Label each sample container with a unique numerical designation.

4.2 Fill the sample container with 25 mls of demonstrated analyte free purge and trap grade methanol.

4.3 An actual analysis should be traceable to the methanol used in the sample containers on the day the sample containers were prepared.

4.4 Record the lot number of the methanol used in the preparation of the sample containers. This information can be used for future reference in the event of suspected contamination of the methanol.

4.5 Employing a syringe, add the appropriate surrogate compounds to the methanol based on the analytical method. For methods 8010B, 8015A, 8020A, and 8021A, add each surrogate compound to the methanol yielding a concentration of approximately 1500 ug/l in each sample container. For methods 8240B, 8260A and the Medium Level Soil/Sediment Sample procedure of the Contract Laboratory Program Statement of Work, add each surrogate compound to the methanol yielding a concentration of approximately 2500 ug/l in each sample container.

4.6 Immediately cap the container tightly and gently swirl.

4.7 Variations of the surrogate compounds may be used depending upon expected sample matrix interferences and contaminants.

4.8 Weigh each labeled sample container with the 25 mls of methanol and surrogate compounds to the nearest one tenth (0.1g) of a gram.

4.9 Record the weight in a bound logbook and on the chain of custody record with its corresponding numerical designation.

4.10 All sample containers must be supplied by the laboratory performing the analysis.

4.11 The prepared sample containers must be stored at  $4^{\circ} \pm 2^{\circ}\text{C}$  before shipment. The sample containers should be prepared no more than fourteen (14) days prior to shipment. It will be the responsibility of the laboratory to ensure the integrity of the sample containers remain contaminant free.

## 5.0 Sample Collection Methodology

5.1 Soil sample collection for volatile organic analysis must be performed with the use of a decontaminated small diameter coring device. A modified 10-30 ml disposable syringe or commercially available small diameter tube/plunger sampler is acceptable. The small diameter coring device must be capable of collecting the required amount of sample from larger diameter core samplers (split spoons, etc.) or from freshly exposed soils.

5.2 Selection of the sample location for volatile organics must be based on the methods in the NJDEP Field Sampling Procedures Manual, May, 1992 and the site specific sampling plan.

5.3 If a modified disposable syringe is used it can be prepared in-house by cutting off the injection tip. Depending upon the construction of the syringe, small air vents must be cut into the plunger or the rubber tip and retaining post must be removed. These alterations to the plunger will prevent air from being forced through or around the soil plug during subcoring and sample extrusion.

5.4 The small diameter core sampler must be capable of delivering the sample directly into the sample container. The outer diameter of the core sampler must be smaller than the inner diameter of the sample container to avoid loss of sample and ease the soil transfer process. **The sample from the small diameter core cannot be transferred to a secondary container such as another sample bottle, zip lock bag, aluminum foil, etc. prior to placement into the sample container with the methanol preservative.**

5.5 Use a small electronic balance or manual scale for measuring the weight of the soil in the syringe. The scale must be calibrated before use, and intermittently the calibration should be checked during the sampling day to ensure accuracy of the weight measurements.

5.6 Tare weigh the small diameter core sampler.

5.7 Once the sampling interval has been selected, trim off the surface soils of the sample interval to expose a fresh soil surface. The loss of volatile organics from the surface soils will occur if the soil has been exposed for a short period of time (during screening, etc.). The removal of the surface soils can be accomplished by scraping the soil surface using a decontaminated spatula or trowel. The sampling procedure must commence immediately once a fresh soil surface has been exposed.

5.8 Using a decontaminated coring device, collect  $10\text{g} \pm 2\text{g}$  (8-12grams) of sample (wet weight). Wipe the outside of the subcoring device to remove any adherent soil. The plunger of the coring

device can be pulled back or completely removed allowing the open barrel of the subcore to be inserted into the soil. Depending upon the soil texture, depth or moisture content, the subcore can be inserted straight into the soil, on an angle or multiple insertions can be performed to obtain the required sample weight.

5.9 Quickly weigh the sample while contained in the small diameter core sampler. Excess soil sample can be removed from the coring device by extruding a small portion of the core and cleaning away with a decontaminated trowel or spatula. **If soil weight is below the weight limit, obtain additional sample. Reweigh after each addition or removal of sample to the subcore until the target weight is attained (8-12g). Analytical results from a sample exceeding the weight maximums and minimums may be rejected and thus require resampling.**

5.10 When sampling soils consisting of similar textures and water content, sample weight can be estimated based on volume of previously weighed samples from sampling or practice core sampling to determine sample weights.

5.11 Immediately open the sample container and slowly extrude the soil core into the preweighed and prenumbered sample container supplied by the laboratory performing the analysis. Avoid splashing methanol out of the sample container. Do not insert the small diameter coring device into the mouth of small diameter sample containers (40ml or 60ml VOA vials) or immerse the small diameter soil coring device into the methanol.

5.12 Ensure the threads on the sample container and cap are free of soil particles. Use a clean brush or paper towel to remove the particles off the threads. The presence of soil particles compromises the seal of the container resulting in loss of methanol which may invalidate the sample.

5.13 Secure the lid of the sample container. Gently swirl the sample to mix and break up the soil aggregate until soil is covered with methanol. **Do not shake.**

5.14 Do not attach any additional adhesive backed labels or tape to the sample containers. Record sample numbers on container avoiding covering laboratory identification number. Labels with wire or rubber band attachments may be used provided they can be removed easily for sample weighing. Record laboratory and field identification numbers on chain of custody and field notes.

5.15 The actual weight of soil will be determined by the laboratory performing the analysis.

5.16 Do not use or submit samples for analysis if any methanol has spilled from a sample container during shipment to the site or during sampling. Extra sample containers can be made available by the laboratory in case of accidental spillage of methanol in the field. The sample containers must be prepared in accordance with Section 4.0.

5.17 After sample collection, immediately return the containers to an iced cooler in an upright position. Sample containers can be placed in separate ziplock bags to protect other containers in case of leakage during transport. The laboratory sample number or field sample identification



number may be placed on the bag and crossed referenced on the Chain of Custody. Do not place additional adhesive backed labels or tape on the sample containers. If any methanol is lost from a sample container upon arrival at the laboratory, the sample is invalid and resampling must be performed.

## 6.0 Moisture Determination

6.1 To report the sample results on a dry weight basis, collect one duplicate sample **not preserved with methanol** from each sample location for moisture determination. Tightly seal the container to prevent the loss of soil moisture. This sample does not require to be weighed or preserved with methanol. A small volume sample container (15 mls or less) may be used for this sample to avoid possible sample shortages.

6.2 Weigh a 5-10g portion of the sample in a tared crucible.

6.3 Dry the sample overnight at 103-105 °C. Allow to cool in a desiccator before reweighing.

6.4 Determine percent dry weight by the following formula:

$$\% \text{ dry weight} = \frac{\text{g of dry sample}}{\text{g of sample}} \times 100$$

6.5 Calculate sample concentration on a dry weight basis.

## 7.0 QA/QC Sample and Decontamination Requirements

### 7.1 Ambient Blank

7.1.1 An Ambient Blank is a QA/QC sample which will determine the potential contamination from ambient air during sampling procedures. This sample will provide a means to evaluate non-sample related contamination.

7.1.2 The Ambient Blank is prepared in the same manner as the sample containers described in Section 4.0. During sample collection, it is opened at the same time and next to the sample container and remains open during sample collection. It is closed at the same time as the sample container. It is performed at only one sample location in an area suspected of having the highest ambient contamination.

7.1.3 The collection of an Ambient Blank is **not required when sampling is performed using the methanol extraction/preservation technique**. It will be optional at the discretion of the site investigation team, or will be required on a site specific basis if previous elevated analytical results are suspected due to contamination from the sampling environment.

7.1.4 If Ambient Blanks are employed, the frequency of collection should be one (1) per day or at the discretion of the investigation team based on site conditions.

7.1.5 Results of the Ambient Blank must be reported as a solid sample where a sample weight of 10g and 100% dry weight is assumed.

## 7.2 Field Blank

7.2.1 A Field Blank is a QA/QC sample which will determine potential contamination from sampling equipment used to collect and transfer samples from the point of collection to the sample container.

7.2.2 A Field Blank is performed by pouring demonstrated analyte free water from one sample container, over each piece of sampling equipment required for sample collection and into a separate set of identical sample containers. Additional information on Field Blanks can be found in the NJDEP Field Sampling Procedures Manual, May 1992.

7.2.3 **A Field Blank is not required when sampling with the methanol extraction/preservation technique.** It is optional, or will be required on a site specific basis if previous elevated analytical results are suspected due to cross contamination from sampling equipment.

## 7.3 Trip Blanks

7.3.1 A Trip Blank is a QA/QC sample which will determine additional sources of contamination that may potentially influence the samples. The sources of the contamination may be from the lab, sample bottles or during shipment.

7.3.2 A Trip Blank is prepared at the same time and in the same manner as the sample containers as described in Section 4.0. The Trip Blank must accompany the sample containers to the field and back to the laboratory along with the collected samples for analysis. It must remain sealed at all times until it is analyzed at the laboratory.

7.3.3 **A Trip Blank is required when sampling with the methanol extraction/preservation technique.** It will be required due to potential cross contamination from sample shipment or from handling at the laboratory.

7.3.4 The frequency of collection for the Trip Blank must be at a rate of one (1) per sample shipment.

7.3.5 Results of the Trip Blank must be reported as a solid sample where a sample weight of 10g and 100% dry weight is assumed.

## 7.4 Duplicate Samples

7.4.1 Perform duplicate samples at a rate of five (5) percent (1 per 20 samples).

7.4.2 Duplicate samples must be obtained from the same location and soil type to minimize location as a potential source of variation in the analytical results. Separate core samples should be obtained for the sample and duplicate sample.

## 7.5 Sample and Sample Container Handling Time

7.5.1 Sample handling time is to control the length of time bottles are shipped to the site and held on site. The standard four (4) day handling time for sample containers and samples remains the same. Obtain additional information on handling times from Chapter 2 in the NJDEP Field Sampling Procedures Manual, May 1992.

7.5.2 As stated in N.J.A.C. 7:26E-2.1(a)15, samples must be delivered to the laboratory no later than 48 hours after sample collection.

## 7.6 Decontamination of Sampling Equipment

7.6.1 All equipment used for sampling must be decontaminated prior to use.

7.6.2 Decontamination of sampling equipment must follow the procedures in the NJDEP Field Sampling Procedures Manual, May 1992 for soil sampling equipment. If modified disposable syringes are utilized, they should be discarded if the three step cleaning procedure will not remove the contamination since exposure to acetone may damage the sampling tool.

## 7.7 General Quality Assurance

7.7.1 Quality assurance requirements have been established to maintain sample integrity. Their primary objectives are to maintain the physical form and chemical composition of the sample and to prevent contamination from other sources or cause changes in contaminant concentrations. Chapter 2 in the NJDEP Field Sampling Procedures Manual, May 1992 may be consulted for further details on other sampling QA/QC criteria and procedures.

## 8.0 Field Analysis

8.1 Field analytical methods may be employed during an investigation to aid in the selection or elimination of samples for laboratory analysis. When collecting samples for field analysis, collect a duplicate sample for laboratory analysis. This prevents returning to a sample location and resampling at a later time. Any methanol preserved samples not submitted for laboratory analysis are a hazardous waste and must be disposed of on-site or by the laboratory according to State and Federal regulations. To avoid this problem, the following procedure can be used:

8.1.1 Using the sampling method in section 5.0, use an EnCore<sup>®</sup> core sampler to obtain a duplicate sample for laboratory analysis. Store the soil for laboratory analysis in the core sampler

by sealing the end(s) of the core with the end caps supplied with the EnCore<sup>R</sup> sampler. **Eliminate headspace in the sampler.**

8.1.2 Label the core for lab analysis and immediately cool the sample. The core sample may be stored at 4°C on ice for a maximum of six (6) hours prior to preserving with methanol. This intermediate storage method can only be used if samples are field analyzed.

8.1.3 Perform the selected field analytical procedure on the duplicate sample and document the field analysis in accordance with the NJDEP Field Analysis Manual, July 1994.

8.1.4 If soil from a sample location is selected for laboratory analysis, preserve the iced core sample with methanol. Samples must be preserved with methanol within the six (6) hour field holding time.

8.1.5 Use this procedure only when performing field analysis of the samples (i.e. Field GC, Immunoassay, etc.).

## **9.0 Laboratory Analysis**

9.1 Upon arrival of the sample at the laboratory, weigh the sample container to the nearest one tenth (0.1g) of a gram to determine the weight of soil placed in the sample container.

9.2 Subtract the weight of the container, methanol and surrogates from the total weight of the sample container with the soil sample. This gives the wet weight of the soil sample.

9.3 Proceed with the analysis of the sample using the "high concentration" methodology of the requested SW-846 analytical method or the "Medium Level Soil/Sediment Samples" procedure of the USEPA Contract Laboratory Program Statement of Work. In both instances, start the analytical procedure at the point where approximately 1ml of methanol extract is to be transferred to storage.

9.4 Using the non-methanol preserved duplicate sample, determine the dry weight of the sample.

## **10.0 Shipping Procedures**

10.1 Methanol is considered a hazardous material therefore shipping of the sample containers is regulated by the U.S. Department of Transportation and the International Air Transport Association (IATA). The rules of shipment set in Title 49 of the Code of Federal Regulations (49 CFR parts 171 to 179) and the current edition of the IATA Dangerous Goods Regulation must be followed when shipping methanol between the laboratory and the field. Consult the above documents or the shipping company for additional information.

10.2 The shipment of the quantity of methanol used for the sample preservation falls under the exemption for small quantities. A summary of the requirements for shipping samples follows. Refer to the code for a complete review of the requirements.

10.2.1 The maximum volume of methanol in a sample container is limited to thirty (30) mls.

10.2.2 The sample container must not be full of methanol.

10.2.3 The sample container must be stored upright and have the lid held securely in place. The mechanism used to hold the cap in place must be able to be completely removed so weight is not added to the sample container.

10.2.4 Sample containers must be packed in a sorbent material capable of absorbing spills from leaks or breakage of the sample containers.

10.2.5 The maximum sample shuttle weight must not exceed 64 pounds.

10.2.6 The maximum volume of methanol per shipping container is 500mls.

10.2.7 The shipper must mark the sample shuttle in accordance with shipping dangerous goods in acceptable quantities.

10.2.8 The package must not be opened or altered until no longer in commerce.

## **11.0 Safety**

11.1 Methanol is a toxic and flammable liquid. Therefore, methanol must be handled with all safety precautions related to toxic and flammable liquids. Inhalation of methanol vapors must be avoided. Vials should be opened and closed quickly during the sample preservation procedure. Methanol must be handled in a ventilated area. Use protective gloves when handling the methanol vials. Store methanol away from sources of ignition such as extreme heat or open flames. The vials of methanol should always be stored in a cooler with ice at all times.

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Appendix C  
Monitor Well Documentation



## Monitor Well Construction Logs

# VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: <u>560075</u>	PROJECT NAME: <u>TEXACO/BAYOUNNE</u>		
RING NUMBER <u>MW IT-12</u>	COORDINATES		DATE <u>3/7/90</u>
LOCATION:	GWL. Depth	Date/Time	DATE STARTED <u>3/6/90</u>
ENGINEER/GEOLOGIST <u>W. DOWLING</u>	Depth	Date/Time	DATE COMPLETED <u>3/6/90</u>
TESTING METHODS <u>BEAT 22-R, 2" SPLIT SPOON, 8" AUGER</u>			PAGE <u>1</u> OF <u>1</u>

(FT)	SAMPLE TYPE & NO	BLOWS ON SAMPLER PER (6")	RECOVERY %	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
	S-1	4-4 4-6	1.8	BROWN FINE TO MEDIUM SAND, SOME SILT. DAMP. MOTTLED MED. SAND AND BLACK SLAG.	SP SP			
	S-2	2-1 2-3	2.0	MOTTLED MEDIUM SAND AND BLACK SLAG. DAMP	SP			
	S-3	3-2 2-1	0.2	MOTTLED MEDIUM SAND AND BLACK SLAG. WET 4.5'	SP	LOOSE		WATER - 5' FILL
	S-4	1-1 1-1	0.2	MOTTLED MEDIUM SAND AND BLACK SLAG. WET.	SP			
	S-5	1-1 1-1	0.4	MOTTLED MEDIUM SAND AND BLACK SLAG. WET. BLACK SILT (SLUG), SOME FINE SAND. WET	SP ML			

TESTS:

## MATERIALS:

SCREEN: 10-3', 0.020 SLOT, 4" DIA.

RISER: 4" DIA., 3-42'

SAND: #2, 10-2', 2 1/2 x 100 LBS BAGS

BENTONITE: 2-1'; 2 GAL

CEMENT: 1-0'

TOTAL DEPTH: 10'



# **VISUAL CLASSIFICATION OF SOILS**

PROJECT NUMBER: <u>560075</u>	PROJECT NAME: <u>TEXACO/BAYONNE</u>
BORING NUMBER <u>MW ET-14</u>	COORDINATES
ELEVATION:	GWL. Depth Date/Time
ENGINEER/GEOLOGIST: <u>W. DOUGLASS</u>	DATE STARTED: <u>3/7/90</u>
DRILLING METHODS <u>GRAT 22-R, 2" SPLIT SPON, 8" AUGER</u>	DATE COMPLETED: <u>3/6/90</u>
	PAGE <u>1</u> OF <u>1</u>

DEPTH (FT)	SAMPLE TYPE & NO	BLOWS ON SAMPLER PER (6" )	RECOVERY FT	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
				CONCRETE				HAMMERED
	5-1	13-6	0.1	BLACK COARSE SAND AND GRAVELLY SLAB. DRY.	GP			
	5-2	13-5	0.1	BLACK COARSE SANDY GRAVELLY SLAB. DAMP.	GP	LOOSE		
5	5-3	2-2	0.1	BROWN TO BLACK SANDY GRAVEL. WATER ~6'.	GP			
	5-4	4-3	0.2	BLACK SANDY GRAVELLY SLAB. WET.	GP			
	5-5	2-1	0.4	BLACK SANDY GRAVELLY SLAB. WET.	GP			
10		50		BLACK SILTY CLAY (SUB). DOOR? WET.	CL			
				BEDROCK				

**NOTES:**

**MATERIALS:**

SCREEN: 0.020, 4" DIA., 10.5-4'  
 RISER: 4" DIA., 4-+2'  
 SAND: #2, 10.5-3', 2Y2X100 LBS.  
 BENTONITE: 3-2'; 3 GAL.  
 CEMENT: 2-0'

**TOTAL DEPTH: 10.5'**

Monitor Well Certification - Form A

**MONITORING WELL CERTIFICATION - FORM A - AS-BUILT CERTIFICATION**  
(One form must be completed for each well)

Name of Permittee: TEXACO Refining & Marketing, Inc.  
Name of Facility: TEXACO TERMINAL  
Location: WEST 1<sup>ST</sup> STREET - AVENUE A, Bayonne  
NJPDDES Permit No:

**CERTIFICATION**

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	<u>26-19400-7</u>
Owner's Well Number (As shown on the application or plans):	<u>MW-3 (57-12)</u>
Well Completion Date:	<u>3/6/90</u>
Distance from Top of Casing (cap off) to ground surface (one-hundredth of a foot):	<u>2'</u>
Total Depth of Well to the nearest 1/2 foot:	<u>10'</u>
Depth to Top of Screen From Top of Casing (or depth to open hole) to the nearest 1/2 foot:	<u>3'</u>
Screen Length (or length of open hole) in feet:	<u>7'</u>
Screen or Slot Size:	<u>0.20</u>
Screen or Slot Material:	<u>PVC</u>
Casing Material: (PVC, Steel or Other-Specify):	<u>PVC</u>
Casing Diameter (inches):	<u>4"</u>
Static Water Level From Top of Casing at the Time of Installation (one-hundredth of a foot):	<u>6'</u>
Yield (gallons per minute):	<u>N/A</u>
Development Technique (specify)	<u>Bailer</u>
Length of Time Well is Developed/ Pumped or Bailed:	<u>2 Hours      Minutes</u>
Lithologic Log:	<u>Attach 11/A</u>

**Authentication**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

\_\_\_\_\_  
Name (Type or Print)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Seal

\_\_\_\_\_  
Certification or License No.

\_\_\_\_\_  
Certification by Executive Officer or Duly Authorized Representative

Daniel F. Fiorentino  
Name (Type or Print)

Daniel F. Fiorentino  
Signature

Vice President  
Title

4.17.90  
Date

(One form must be completed for each well.)

Name of Permittee: TEXACO Refining & Marketing, Inc.  
Name of Facility: TEXACO TERMINAL  
Location: WEST 1<sup>st</sup> STREET & AVENUE A, Bayonne  
NJDES Permit No:

**CERTIFICATION**

Well Permit Number (As assigned by NJDEP's  
Bureau of Water Allocation:

26-19399-0

Owner's Well Number (As shown on the  
application or plans):

MW-2 (57.13)

Well Completion Date:

3/6/90

Distance from Top of Casing (cap off) to  
ground surface (one-hundredth of a foot):

2'

Total Depth of Well to the nearest 1/2 foot:

11'

Depth to Top of Screen From Top of Casing  
(or depth to open hole) to the nearest 1/2 foot:

4'

Screen Length (or length of open hole) in feet:

7'

Screen or Slot Size:

0.20

Screen or Slot Material:

PVC

Casing Material: (PVC, Steel or Other-Specify):

PVC

Casing Diameter (inches):

4"

Static Water Level From Top of Casing at the Time  
of Installation (one-hundredth of a foot):

6'

Yield (gallons per minute):

N/A

Development Technique (specify)

Bailer

Length of Time Well is Developed/  
Pumped or Bailed:

2 Hours Minutes

Lithologic Log:

Attach 1/2

**Authentication**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

\_\_\_\_\_  
Name (Type or Print)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Seal

\_\_\_\_\_  
Certification or License No.

Certification by Executive Officer or Duly Authorized Representative

Daniel F. Fiorentino  
Name (Type or Print)

Dan Fiorentino 1175  
Signature

Vice President  
Title

4.17.90  
Date

**MONITORING WELL CERTIFICATION - FORM A - AS-BUILT CERTIFICATION**  
(One form must be completed for each well)

Name of Permittee: TEXACO Refining & Marketing Inc.  
Name of Facility: TEXACO TERMINAL  
Location: WEST 1<sup>st</sup> Street, AVENUE A, Bayonne  
NJPDDES Permit No:

**CERTIFICATION**

Well Permit Number (As assigned by NJDEP's Bureau of Water Allocation:	<u>26-1939E-1</u>
Owner's Well Number (As shown on the application or plans):	<u>MW-1(17.14)</u>
Well Completion Date:	<u>2/6/90</u>
Distance from Top of Casing (cap off) to ground surface (one-hundredth of a foot):	<u>2'</u>
Total Depth of Well to the nearest 1/2 foot:	<u>11'</u>
Depth to Top of Screen From Top of Casing (or depth to open hole) to the nearest 1/2 foot:	<u>4'</u>
Screen Length (or length of open hole) in feet:	<u>7'</u>
Screen or Slot Size:	<u>0.20</u>
Screen or Slot Material:	<u>PVC</u>
Casing Material: (PVC, Steel or Other-Specify):	<u>PVC</u>
Casing Diameter (inches):	<u>4"</u>
Static Water Level From Top of Casing at the Time of Installation (one-hundredth of a foot):	<u>6'</u>
Yield (gallons per minute):	<u>N/A</u>
Development Technique (specify)	<u>Bailed</u>
Length of Time Well is Developed/ Pumped or Bailed:	<u>2 Hours Minutes</u>
Lithologic Log:	<u>Attach N/A</u>

**Authentication**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

\_\_\_\_\_  
Name (Type or Print)

\_\_\_\_\_  
Signature

Seal

\_\_\_\_\_  
Certification or License No.

Certification by Executive Officer or Duly Authorized Representative

Daniel F. Fiorentino  
Name (Type or Print)

Daniel Fiorentino 1175  
Signature

Vice President  
Title

4.17.90  
Date



Monitor Well Certification - Form B

Name of Permittee:  
Name of Facility:  
Location:  
NJPDES Number:

**LAND SURVEYOR'S CERTIFICATION**

Well Permit Number (As assigned by NJDEP's  
Bureau of Water Allocation:  
This number must be permanently affixed to  
the well casing.

26-19400-7

Longitude (one-tenth of a second):  
Latitude (one-tenth of a second):  
Elevation of Top of Casing (cap off)  
(one-hundredth of a foot):  
Owners Well Number (As shown on application  
or plans):

West 74° 08' 36.02"

North 40° 38' 38.10"

Top PVC 11.80 Top Casing 12.27

IT - 12

**AUTHENTICATION**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.



**PROFESSIONAL LAND SURVEYOR'S SIGNATURE**

William G. Hollows, Murphy & Hollows Assoc., Inc.

**SEAL**

**PROFESSIONAL LAND SURVEYOR'S NAME**  
(Please print or type)

No. 27473

**PROFESSIONAL LAND SURVEYOR'S LICENSE #**

The Department reserves the right in cases of violation of permit specified ground water limits or Ground Water Quality Standards (N.J.A.C. 7:9-6.1 et seq.) to require that wells be resurveyed to an accuracy of one-hundredth of a second latitude and longitude. This shall not be considered to be a major modification of the NJPDES permit.

GROUND WATER MONITOR 3 WELL CERTIFICATION-FOR 1-LOCATION CERTIFICATION

Name of Permittee:  
Name of Facility:  
Location:  
NJPDES Number:

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's  
Bureau of Water Allocation:  
This number must be permanently affixed to  
the well casing.

26-19399-0

Longitude (one-tenth of a second):

West 74° 08' 32.89"

Latitude (one-tenth of a second):

North 40° 38' 38.69"

Elevation of Top of Casing (cap off)  
(one-hundredth of a foot):

Top PVC 11.81 Top Casing 11.94

Owners Well Number (As shown on application  
or plans):

IT - 13

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.



PROFESSIONAL LAND SURVEYOR'S SIGNATURE

William G. Hollows, Murphy & Hollows Assoc., Inc.  
PROFESSIONAL LAND SURVEYOR'S NAME  
(Please print or type)

SEAL

No. 27473

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Name of Permittee:  
Name of Facility:  
Location:  
NJPDES Number:

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's  
Bureau of Water Allocation:  
This number must be permanently affixed to  
the well casing.

26-19398-1

Longitude (one-tenth of a second):  
Latitude (one-tenth of a second):  
Elevation of Top of Casing (cap off)  
(one-hundredth of a foot):

West 74° 08' 30.17"  
North 40° 38' 41.31"

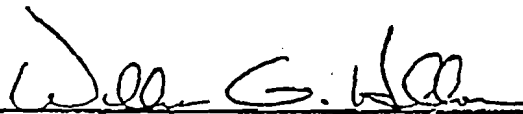
Top PVC 11.95 Top Casing 12.38

Owners Well Number (As shown on application  
or plans):

IT - 14

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.



PROFESSIONAL LAND SURVEYOR'S SIGNATURE

William G. Hollows, Murphy & Hollows Assoc., Inc.  
PROFESSIONAL LAND SURVEYOR'S NAME  
(Please print or type)

SEAL

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Ground Water Sampling Logs - May, 1992 Sampling Event

GROUND WATER WELL SAMPLING

CLIENT NAME: Texaco, Bayonne  
JOB NUMBER: 529536

DATE: 5-5-92

PH METER #                     

WEATHER: RAINING 42°

PH STANDARD: 4 7 10

CREW: LM/JF

ACTUAL PH 4.09 7.10 9.96

PERSON(S) MET:

CONDUCTIVITY METER #                     

Ken Swider

CONDUCTIVITY STANDARD 1000 uhmhos 10,000 uhmhos

ACTUAL CONDUCTIVITY 700 7000

SAMPLING DESCRIPTION: GWM. Wells.

\*MS/MS Dup.

WELL PERMIT #                     

WELL # CDM #2

TIME:                     

PH: 7.01

TEMP (°C): 10°c

CONDUCTIVITY (uhmos): 440

COMMENTS:

PH = 7.05 temp = 10°c

Cond. 325 DO<sub>2</sub> = 3.30

PH = 6.98 temp = 11°c

Cond. 1100 DO<sub>2</sub> = 4.10

Level = 11.21' / B.S. = 7.19'

WELL PERMIT #                     

WELL # IT #12

TIME:                     

PH: 6.87

TEMP (°C): 11°c

CONDUCTIVITY (uhmos): 16,900

COMMENTS:

PH = 6.75 temp 11°c

Cond. 16,900 DO<sub>2</sub> = 5.90

PH = 6.96 temp = 11°c

Cond. 17,000 DO<sub>2</sub> = 6.40

Level 5.82' / B.S. 5.79'

Distance from top of casing to ground grade (ft) =                     

Diameter of well (inches) = 4"

Depth to bottom of well (ft) = 11.80

Depth to water surface (ft) = 5.47

Water column (ft) = 6.33

Water volume in casing (gallons) = 4.11

Estimated volume to purge (gallons) = 12.3

Well purging began at 0908

Well purging ended at 0921

Purging rate (gallons/minute) = 19 gpm

Actual volume purged (gallons) = 13 gallons

Sampling began at 0930

Sample was finished at 0935

Distance from top of casing to ground grade (ft) =                     

Diameter of well (inches) = 4"

Depth to bottom of well (ft) = 11.64

Depth to water surface (ft) = 5.96

Water column (ft) = 5.68

Water volume in casing (gallons) = 3.69

Estimated volume to purge (gallons) = 11.0

Well purging began at 0944

Well purging ended at 0956

Purging rate (gallons/minute) = 19 gpm

Actual volume purged (gallons) = 12 gallons

Sampling began at 1001

Sample was finished at 1011

Measurements of distance, depth and water column length are to be measured to nearest .01 feet

DO<sub>2</sub> meter # 033414

temp = 12° / 10.76 mg/L

B.P. - Before purging

A.P. - after purging

before sampling

CLIENT NAME: Texaco  
JOB NUMBER: 529536

Date: 5-5-92  
Sheet: 2 of 4

WELL PERMIT #  
WELL # IT #13  
TIME:  
pH: 7.15  
TEMP (°C): 11°  
CONDUCTIVITY (u/mhos): 18,000  
COMMENTS:

pH = 7.13 temp 11°  
cond. 17,500 DO<sub>2</sub> = 6.40

pH = 7.14 temp 11°  
cond. 17,000 DO<sub>2</sub> = 7.20

H<sub>2</sub>O level 5.45 B.S. 5.44

Distance from top of casing to ground grade (ft) =  
Diameter of well (inches) = 4"  
Depth to bottom of well (ft) = 13.00  
Depth to water surface (ft) = 5.62  
Water column (ft) = 7.38  
Water volume in casing (gallons) = 4.79  
Estimated volume to purge (gallons) = 14.3

Well purging began at 1016  
Well purging ended at 1031  
Purging rate (gallons/minute) = 1 gpm  
Actual volume purged (gallons) = 15 gallons

Sampling began at 1040  
Sample was finished at 1050

WELL PERMIT #  
WELL # 9  
TIME:  
pH: 7.17  
TEMP (°C): 11°  
CONDUCTIVITY (u/mhos): 7900  
COMMENTS:

pH = 7.28 cond. 7000  
temp 11° DO<sub>2</sub> = 3.90

pH = 7.15 cond = 8000  
temp 11° DO<sub>2</sub> = 3.60

Water level = 6.00 / B.S. 5.89

Distance from top of casing to ground grade (ft) =  
Diameter of well (inches) = 4"  
Depth to bottom of well (ft) = 10.20  
Depth to water surface (ft) = 5.87  
Water column (ft) = 4.33  
Water volume in casing (gallons) = 2.81  
Estimated volume to purge (gallons) = 8.44

Well purging began at 1057  
Well purging ended at 1106  
Purging rate (gallons/minute) = 1 gpm  
Actual volume purged (gallons) = 9 gallons

Sampling began at 1114  
Sample was finished at 1123

WELL PERMIT #  
WELL # 114  
TIME:  
pH: 7.01  
TEMP (°C): 10°  
CONDUCTIVITY (u/mhos): 900  
COMMENTS:

pH = 7.06 cond. 1050  
temp 10° DO<sub>2</sub> = 2.60

pH 6.96 cond = 900  
temp = 10° DO<sub>2</sub> = 2.90

Distance from top of casing to ground grade (ft) =  
Diameter of well (inches) = 4"  
Depth to bottom of well (ft) = 12.30  
Depth to water surface (ft) = 6.60  
Water column (ft) = 5.70  
Water volume in casing (gallons) = 3.70  
Estimated volume to purge (gallons) = 11.1

Well purging began at 1131  
Well purging ended at 1143  
Purging rate (gallons/minute) = 1 gpm  
Actual volume purged (gallons) = 12 gallons

Sampling began at 1146  
Sample was finished at 1153

Measurements of distance, depth and water column length are to be measured to near .01 feet

H<sub>2</sub>O level 6.59 / B.S. = 6.59

Ground Water Sampling Logs - April, 1990 Sampling Event



GROUND WATER SAMPLING LOGS  
CLIENT NAME: TEXACO-BAYONNE

DATE: 4-5-90

WEATHER: Overcast 45°F

PH STANDARD: 4 7 10

CREW: J. Fuentes/B. Dowling

ACTUAL PH 4.15 7.00 9.10

PERSON(S) MET: John Hearn

CONDUCTIVITY STANDARD 1000 MG/L 10,000 MG/L

ACTUAL 625 6,000

SAMPLING DESCRIPTION: Ground Water Sampling

WELL # IT-13

TIME: 8:27

pH: 6.65

TEMP: 9.0°C

CONDUCTIVITY: 10,500

Distance from top of casing to ground grade = 1.88'

Diameter of well (inches) 4"

Depth to bottom of well = 12.48'

Depth to water surface = 6.48'

Water column = 6.00'

Water volume in casing = 3.90 gal.

Estimated volume to purge = 11.70 gal.

Well purging began at 8:18

Well purging ended at 8:26

Purging rate = 3 gpm

Actual volume purged = 24 gal.

Sampling began at 8:30

Sample was finished at 8:43

WELL # IT-9

TIME: 9:10

pH: 6.75

TEMP: 10°C

CONDUCTIVITY: 4,200

Distance from top of casing to ground grade = 1.81'

Diameter of well (inches) 4"

Depth to bottom of well = 12.05'

Depth to water surface = 5.34'

Water column = 6.71'

Water volume in casing = 4.36 gal.

Estimated volume to purge = 13.08 gal.

Well purging began at 9:04

Well purging ended at 9:10

Purging rate = 3 gpm

Actual volume purged = 18 gal.

Sampling began at 9:15

Sample was finished at 9:25

WELL # IT-14

TIME: 9:55

pH: 6.90

TEMP: 13°C

CONDUCTIVITY: 900

Distance from top of casing to ground grade = 2.02'

Diameter of well (inches) 4"

Depth to bottom of well = 12.52'

Depth to water surface = 6.41'

Water column = 6.11'

Water volume in casing = 3.97 gal.

Estimated volume to purge = 11.91 gal.

Well purging began at 9:44

Well purging ended at 9:54  
Purging rate = 3 gpm  
Actual volume purged = 30 gal.

Sampling began at 10:00  
Sample was finished at 10:10

Distance from top of casing to ground grade = 2.28'  
Diameter of well (inches) 4"  
Depth to bottom of well = 11.45'  
Depth to water surface = 4.89'  
Water column = 5.65  
Water volume in casing = 4.26 gal.  
Estimated volume to purge = 13 gal.

WELL # IT-8  
TIME: 10:50  
pH: 7.00  
TEMP: 10°C  
CONDUCTIVITY: 700

Well purging began at 10:33  
Well purging ended at 10:43  
Purging rate = 3 gpm  
Actual volume purged = 30 gal.

Sampling began at 10:50  
Sample was finished at 11:06

Distance from top of casing to ground grade = 2.22'  
Diameter of well (inches) 4"  
Depth to bottom of well = 16.85'  
Depth to water surface = 4.0'  
Water column = 12.85'  
Water volume in casing = 8.35 gal.  
Estimated volume to purge = 26 gal.

WELL # CDM-1  
TIME: 11:30  
pH: 6.85  
TEMP: 11°C  
CONDUCTIVITY: 275

Well purging began at 11:13  
Well purging ended at 11:23  
Purging rate = 3 gpm  
Actual volume purged = 30 gal.

Sampling began at 11:30  
Sample was finished at 11:45

Distance from top of casing to ground grade = 2.03'  
Diameter of well (inches) 4"  
Depth to bottom of well = 11.45'  
Depth to water surface = 8.00  
Water column = 3.45'  
Water volume in casing = 2.24 gal.  
Estimated volume to purge = 7 gal.

WELL # IT-12  
TIME: 12:48  
pH: 8.35  
TEMP: 12°C  
CONDUCTIVITY: 10,300

Well purging began at 12:07  
Well purging ended at 12:12  
Purging rate = 2 gpm  
Actual volume purged = 10 gal.

Sampling began at 12:35  
Sample was finished at 12:45

Appendix D  
Proposed Ground Water Sampling Log Form

## Ground Water Sampling Log

### I. GENERAL INFORMATION

Project: \_\_\_\_\_ Site: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Weather: \_\_\_\_\_ Sampling Personnel: \_\_\_\_\_

### II. WELL INFORMATION

Well Permit No: \_\_\_\_\_ Well No: \_\_\_\_\_ Outer Casing Dia: \_\_\_\_\_  
 Inner Well Casing Type: \_\_\_\_\_ and Diameter: \_\_\_\_\_ Screen Length: \_\_\_\_\_  
 PID/FID around well head before opening: \_\_\_\_\_ after opening: \_\_\_\_\_

### III. PURGE INFORMATION

Water Level Before Purge: \_\_\_\_\_ Purge Start Time: \_\_\_\_\_ Measuring Point: \_\_\_\_\_  
 Water Level After Purge: \_\_\_\_\_ Purge End Time: \_\_\_\_\_ Purge Rate: \_\_\_\_\_  
 Purge Volume: \_\_\_\_\_ Purge Tubing Intake Level (if applicable): \_\_\_\_\_  
 Purge Device (incl. Tubing if applicable): \_\_\_\_\_

Time	pH	Temp	Cond.	Diss. O <sub>2</sub>	Turb.	Water Level	Flow Rate	NOTES

### IV. SAMPLING INFORMATION

Water Level Prior to sample collection: \_\_\_\_\_ Time: \_\_\_\_\_  
 Sampling Begin Time: \_\_\_\_\_ Sampling End Time: \_\_\_\_\_  
 Analysis collected for: \_\_\_\_\_  
 Water Level After collection: \_\_\_\_\_ Time: \_\_\_\_\_  
 Depth to bottom of well from top of inner casing: \_\_\_\_\_

V. NOTES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



State of New Jersey

Christine Todd Whitman  
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.  
Commissioner

Jon Baldwin  
Texaco  
EHS Division  
PO Box 509  
Beacon, NY 12508

OCT 26 1998

RE: Memorandum of Agreement- Texaco Refining and Marketing Inc. (Texaco)  
236 West 1<sup>st</sup> Street, Bayonne City, Hudson County  
Case #E85108-M01

Dear Mr. Baldwin:

The New Jersey Department of Environmental Protection (NJDEP) has reviewed the proposed schedule dated September 23, 1998. The proposed schedule is acceptable. Texaco shall conduct all activities and submit all reports in accordance with the schedule. Be advised that the next document is due on January 4, 1999.

If you have any questions regarding this letter, please contact the Case Manager, Joseph J. Nowak, at 609 292-0130.

Sincerely,

Michael A. Justiniano, Supervisor  
Bureau of Environmental Evaluation,  
Cleanup and Responsibility Assessment



Texaco  
Environment  
Health and Safety  
Division

P O Box 509  
Beacon NY 12508  
914 831 3400

September 23, 1998

Mr. Joseph Nowak  
New Jersey Department of Environmental Protection  
Division of Responsible Party Site Remediation - BEECRA  
P.O. Box 432  
Trenton, New Jersey 08625-0432

SEP 25 1998  
TRENTON, NJ  
NJDEP  
INDUSTRIAL SITE  
EVALUATION  
SECTION  
02400

Re: Memorandum of Agreement - Texaco Refining and Marketing Inc.  
236 West 1<sup>st</sup> Street, Bayonne, Hudson County  
Block 391, Lot 2 - Pirelli Property  
Case # 98-1-30-0345-59

Dear Mr. Nowak:

In response to the Department's letter of June 9, 1998 regarding the Memorandum of Agreement (MOA) for the above referenced site, the following schedule is submitted:

September 15, 1998 - Request For Proposal (RFP) submitted to four environmental contractors.

October 9, 1998 - RFP responses due to Texaco.

October 23, 1998 - Job award to selected contractor.

January, 1999 - Submittal of Remedial Action Workplan (RAW) to NJDEP.

April, 1999 - Begin implementation of RAW.

October, 1999 - Completion of remedial action and submittal of NFA request.

If you have any questions or need additional information please call me at (914) 838-7297.

Very truly yours,

JON BALDWIN

JJB:jb

File: c:/mydocs/pirelli/njdep-sched

Cc: RSMccay-MJPorzio



Texaco  
Environment  
Health and Safety  
Division

P O Box 509  
Beacon NY 12508  
914 832 7000

May 19, 1998

RECEIVED

MAY 21 1998

New Jersey Department of Environmental Protection  
Division of Responsible Party Site Remediation  
Bureau of Field Operations - Case Assignment Section  
401 East State Street  
P. O. Box 434  
Trenton, NJ 08625-0434  
Attention: Jerry O'Donnell

**SUBJECT: Memorandum of Agreement**  
**Texaco Refining and Marketing Inc. - Bayonne Terminal**  
**236 West 1<sup>st</sup> Street, Bayonne, Hudson County**  
**Case #: 98-1-30-0345-59**

Dear Mr. O'Donnell:

Enclosed are two signed originals of the Memorandum of Agreement (MOA) for a former cable manufacturing facility in Bayonne New Jersey. This site is located adjacent to the former Texaco Refining and Marketing Inc. Terminal currently being remediated under ISRA case number 85108. Mr. Joseph Nowak of the Division of Responsible Party Site Remediation (BEECRA) is the NJDEP case manager for case #85108. To provide continuity between the two projects, Texaco requests that, Mr. Nowak also be assigned as the case manager for this project.

Once this MOA has been executed by Mr. Pedersen, please return it to my attention at **Texaco Inc., EHS Division, P.O. Box 509, Beacon NY, 12508.**

If you have any questions or need additional information regarding this MOA please contact me at (914) 838-7297.

Thank you,

JON BALDWIN

JJB:jb

File: MOAsubmittal2.doc

cc: Stephen Maybury, BEECRA  
Thomas Catapano, EDA



## State of New Jersey

Christine Todd Whitman  
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.  
Commissioner

IN THE MATTER OF  
THE 236 WEST 1ST STREET SITE  
AND  
TEXACO REFINING & MARKETING, INC.

:  
:  
:  
:  
:  
MEMORANDUM  
OF  
AGREEMENT

This Memorandum of Agreement is entered into pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (hereinafter "the Department" or "NJDEP") by N.J.S.A. 13:1D-1 et seq. and N.J.S.A. 58:10B et seq. and the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. and the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq. and duly delegated to the Section Chief, Division of Responsible Party Site Remediation, Case Assignment Section pursuant to N.J.S.A. 13:1B-4.

### FINDINGS

1. The property that is the subject of this Memorandum of Agreement is owned by Texaco Refining & Marketing, Inc., and is located at 236 West 1st Street, and is designated as Block 391, Lot 2 on the tax maps of the City of Bayonne, Hudson County, New Jersey (hereinafter the "Site").

2. Texaco Refining & Marketing, Inc., with principal offices at 236 West 1st Street, City of Bayonne, New Jersey 91608-10009, is the party executing this Memorandum of Agreement.

3. The intent of this Memorandum of Agreement is to allow Texaco Refining & Marketing, Inc. to conduct any of the remedial activities outlined herein with oversight from the Department. Texaco Refining & Marketing, Inc. has indicated to the Department, that it wishes to conduct the following activities at the Site with the Department's oversight:

#### a. Remedial Action

4. By entering into this Memorandum of Agreement, Texaco Refining & Marketing, Inc. does not admit to any fact, fault or liability under any statute or regulation for conditions which existed before, during, or after Texaco Refining & Marketing, Inc.'s execution of this Memorandum of Agreement nor shall it be construed as a waiver of any right or defense Texaco Refining & Marketing, Inc. may have with regard to the Site.



## AGREEMENT

### I. Remediation

5. Texaco Refining & Marketing, Inc. agrees to submit the following documents and the Department agrees to review and comment on documents submitted.

#### a. Remedial Action Report

6. Within thirty (30) calendar days after the Department's receipt of any submission pursuant to this Memorandum of Agreement, the Department will inform Texaco Refining & Marketing, Inc. in writing of any administrative deficiencies in the submission, pursuant to N.J.A.C. 7:26E, that will prevent the Department from conducting its review. When the Department determines that the submission is administratively complete, the Department will notify Texaco Refining & Marketing, Inc. in writing of the timeframe required for the Department to complete the review. This review will include a determination by the Department whether or not all remedial activities have been carried out consistent with applicable rules, standards, and guidelines.

7. Within seven (7) calendar days after the effective date of this Memorandum of Agreement, Texaco Refining & Marketing, Inc. will submit to the Department: a) the name, address and telephone number of the individual who will be the contact for Texaco Refining & Marketing, Inc. regarding technical matters concerning this Memorandum of Agreement and b) the name and address of the designated agent for Texaco Refining & Marketing, Inc. for the purpose of service for all matters concerning this Memorandum of Agreement.

8. Texaco Refining & Marketing, Inc. may terminate this Memorandum of Agreement if Texaco Refining & Marketing, Inc. determines that it is no longer feasible or desirable to continue with this Memorandum of Agreement, when Texaco Refining & Marketing, Inc.:

- a. Submits full payment to the Department for any Department oversight costs the Department incurred pursuant to this Memorandum of Agreement which Texaco Refining & Marketing, Inc. has not paid;
- b. Notifies the Department in writing of its intentions to terminate this Memorandum of Agreement;
- c. Submits all data generated pursuant to this Memorandum of Agreement; and
- d. Ensures that no environmental hazards exist at the Site as a result of Texaco Refining & Marketing, Inc.'s actions pursuant to this Memorandum of Agreement.

- e. The Department will cease review of any submittals under this memorandum of agreement on the date it receives the notice of intent to terminate described in Paragraph 8 (b) above; and no oversight costs will accrue after the Department has determined that the signatory is in full compliance with Paragraph 8. The Department will then prepare a summary of its costs and provide it to Texaco Refining & Marketing, Inc.. The date of termination of this agreement is the date of the Department's receipt of both the full unconditioned payment of all of the Department's oversight costs and all data required by Paragraph 8.c. above.

## II. Project Coordination

9. Unless otherwise directed by the Department, Texaco Refining & Marketing, Inc. shall submit two (2) copies of all documents required by this Memorandum of Agreement to the person identified below, who shall be the Department's contact for Texaco Refining & Marketing, Inc. for all matters concerning this Memorandum of Agreement.

New Jersey Department of Environmental Protection  
Division of Responsible Party Site Remediation  
Bureau of Environmental Evaluation Cleanup Responsibility  
401 East State Street, P.O. Box 432  
Trenton, New Jersey 08625-0432

Attention: Steve Maybury, Bureau Chief

## III. Financial Obligations

10. Upon receipt of a summary of the Department's costs incurred in connection with its oversight functions of this Memorandum of Agreement, Texaco Refining & Marketing, Inc. shall submit to the Department a cashier's or certified check payable to the "Treasurer, State of New Jersey" with NJDEP Form 062A for the full amount of the Department's oversight costs. Texaco Refining & Marketing, Inc. cannot be released from its obligations under this Memorandum of Agreement, until all oversight costs, for work performed by the Department, are paid.

11. Beginning three hundred sixty-five (365) calendar days after the effective date of this Memorandum of Agreement, and annually thereafter on that same calendar day, Texaco Refining & Marketing, Inc. shall submit to the Department a detailed summary of all monies spent to date pursuant to this Memorandum of Agreement, the estimated cost of all future expenditures associated with this Memorandum of Agreement (including any operation and maintenance costs), and the reason for any changes from the previous cost review Texaco Refining & Marketing, Inc. submitted.

#### IV. Reservation of Rights

12. The Department reserves the right to unilaterally terminate this Memorandum of Agreement in the event that Texaco Refining & Marketing, Inc. violates any terms or fails to meet the obligations of this Memorandum of Agreement or in the event that the Site becomes a high priority for the Department.

13. Nothing herein, including any document the Department issues as agreed to above, shall be interpreted to constitute a release or waiver of liability for any of the conditions which existed before, during or after the Department's execution of this Memorandum of Agreement.

#### V. General Conditions

14. Texaco Refining & Marketing, Inc. shall, in addition to any other obligation required by law, notify the Department contact immediately upon knowledge of any condition posing an immediate threat to human health and/or the environment.

15. Texaco Refining & Marketing, Inc. shall perform all work conducted pursuant to this Memorandum of Agreement in accordance with N.J.A.C. 7:26E and prevailing professional standards then prevailing.

16. Texaco Refining & Marketing, Inc. shall conform all actions required by this Memorandum of Agreement with all applicable federal, State and local laws and regulations.

17. Nothing in this Memorandum of Agreement shall be deemed to impose on Texaco Refining & Marketing, Inc. any additional liabilities or obligations, other than those specifically stated herein. Nothing shall relieve Texaco Refining & Marketing, Inc. from complying with all other applicable laws and regulations.

18. Texaco Refining & Marketing, Inc. shall preserve all potential evidentiary documentation found at the Site, which may provide a nexus between the contaminated site and any responsible party or lead to the discovery of other areas of concern including without limitation, documents, labels, drums, bottles, boxes or other containers, and/or other physical materials that could lead to the establishment of the identity of any person which generated, treated, transported, stored or disposed of contaminants at the Site, until written approval is received from the Department to do otherwise.

19. Upon receipt of a written request from the Department, Texaco Refining & Marketing, Inc. shall submit to the Department all data and information concerning contamination at the Site, including technical records and contractual documents, and raw sampling and monitoring data, whether or not such data and information was developed pursuant to this Memorandum of Agreement.

If Texaco Refining & Marketing, Inc. believes any such data or information is protected by a privilege it will retain the data and information and notify the Department of the nature of the document and the privilege claimed. Texaco Refining & Marketing, Inc. may request that the Department keep confidential information contained in a submission to the Department pursuant to N.J.A.C. 7:14A-11.

20. The Department will issue a no further action statement when the Department has determined that the signatory has conducted the agreed upon remedial activities pursuant to this Memorandum of Agreement and the remedial activities are in accordance with all Department requirements.

21. This Memorandum of Agreement shall be governed and interpreted under the laws of the State of New Jersey.


22. This Memorandum of Agreement shall be binding, jointly and severally, on each party, its successors and assignees subject to the right of termination above. No change in the ownership or corporate or business status of any party, or of the facility or Site shall alter any signatories's responsibilities under this Memorandum of Agreement.

23. This Memorandum of Agreement shall become effective upon execution hereof by all parties.

**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Date: \_\_\_\_\_ BY: \_\_\_\_\_  
Mark J. Pedersen, Section Chief  
DRPSR, Case Assignment Section

**Texaco Refining & Marketing, Inc.**

Date: 5-4-98 BY:   
Signature  
DANIEL R. LITTLE  
Print Full Name Signed Above  
Acting VP-Marketing (FOR JAPRICE)  
Title



## State of New Jersey

Christine Todd Whitman  
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.  
Commissioner

IN THE MATTER OF  
THE 236 WEST 1ST STREET SITE  
AND  
TEXACO REFINING & MARKETING, INC.

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MEMORANDUM  
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Division of Responsible Party Site Remediation  
Bureau of Environmental Evaluation Cleanup Responsibility  
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Trenton, New Jersey 08625-0432

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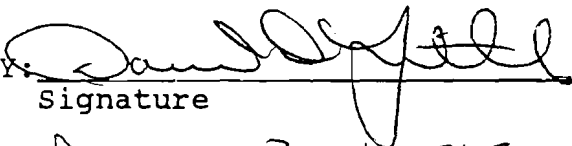
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23. This Memorandum of Agreement shall become effective upon execution hereof by all parties.

**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Date: \_\_\_\_\_ BY: \_\_\_\_\_  
Mark J. Pedersen, Section Chief  
DRPSR, Case Assignment Section

**Texaco Refining & Marketing, Inc.**

Date: 5-4-98 BY:   
Signature  
DANIEL R. LITTLE  
Print Full Name Signed Above  
Acting VP-Marketing (For JAPRize)  
Title

*Transmitted Via Federal Express*

September 20, 2004

Mr. Joseph Nowak, Case Manager  
Bureau of Northern Case Management  
New Jersey Department of Environmental Protection  
401 East State Street  
Trenton, NJ 08625

Re: Response to Comments – Remedial Investigation Report Dated May 31, 2001  
Memorandum of Agreement – Texaco Refining and Marketing, Inc.  
236 West 1<sup>st</sup> Street, Bayonne City, Hudson County, New Jersey  
Case # E85108-M01  
BBL Project #: 43587.004

Dear Mr. Nowak:

On behalf of Chevron Environmental Management Company (CEMC), Blasland, Bouck & Lee, Inc. (BBL) prepared this response to the New Jersey Department of Environmental Protection (NJDEP) comment letter dated June 6, 2002 for the former Pirelli Cable Company site, located at 236 West 1<sup>st</sup> Street, Bayonne City, New Jersey. Recent sampling results conducted to delineate constituents of concern (COCs) at the site and CEMC's proposed future actions are also included in this response. The NJDEP letter comments on the Remedial Investigation Report (RIR) dated May 31, 2001, which was submitted on behalf of Texaco Refining and Marketing, Inc. (TRMI). As a result of the merger between Chevron Corporation and Texaco Inc., management of the environmental issues at the former Pirelli Cable Company facility has transferred from TRMI to CEMC.

CEMC is currently working with a developer on a proposed residential, commercial, and recreational development at the former Pirelli property and the adjacent former Texaco terminal property. CEMC is committed to working with NJDEP to return the properties to beneficial use.

#### **RESPONSE TO NJDEP COMMENTS**

The following responses to NJDEP comments are based on historic file information and the July 23, 2003 meeting attended by the NJDEP, CEMC, and BBL in Trenton, New Jersey. The NJDEP comments are summarized herein according to the letter's subheadings and the associated CEMC response follows. The June 6, 2002 NJDEP comment letter is provided as Appendix A.

## I. Soil Comments

### 1. General Comments

NJDEP is requiring that CEMC:

- a. Submit and document all historical sample locations and analytical results obtained at the site on site maps, pursuant to the Technical Requirements for Site Remediation (TRSR).
- b. Provide site maps and a narrative delineating and documenting all constituents detected in soil at concentrations greater than the NJDEP Residential Direct Contact Soil Cleanup Criteria (RDCSCC).
- c. Provide information regarding future use of the property and discuss engineering and institutional controls that will be used at the site to leave constituents in soil at concentrations greater than NJDEP RDCSCC.

*CEMC Response:*

- a. Site maps and tables documenting historical sample locations and analytical results are provided as Appendix B to this response letter. The following figures provide a comprehensive summary of soil investigation and results obtained to date at the site:
  - Figure 1: Aerial Photograph of Site Location;
  - Figure 2: Lead Concentrations in Surface Soil Samples;
  - Figure 3: Copper and Zinc Concentrations in Surface Soil Samples;
  - Figure 4: Polychlorinated Biphenyl (PCB) Concentrations in Surface Soil Samples;
  - Figure 5: Total Petroleum Hydrocarbon (TPH) Concentrations in Surface Soil Samples; and
  - Figure 6: Polycyclic Aromatic Hydrocarbon (PAH) Concentrations in Surface Soil Samples.

The samples depicted on these figures were collected in the 0 to 2 feet below ground surface (bgs) sampling interval, unless otherwise noted. Symbols are provided to distinguish field screening data from laboratory analytical results. Due to the large number of samples collected and analytical results obtained, posting concentrations at each sampling location was not feasible. Alternatively, a color coding scheme is used to depict sampling results obtained at each sampling location and the following tables were prepared to report analytical results.

- Table 1: Lead, Copper, & Zinc Laboratory Analytical Results;
  - Table 2: Lead, Copper, & Zinc Soil Screening Results;
  - Table 3: Polychlorinated Biphenyl Laboratory Analytical Results;
  - Table 4: Total Petroleum Hydrocarbon Laboratory Analytical Results;
  - Table 5: Polycyclic Aromatic Hydrocarbon Laboratory Analytical Results; and
  - Table 6: Laboratory Analytical Results From Excavated Soil.
- b. Soil delineation was evaluated on a site-wide basis for each constituent of concern: lead, copper, zinc, PCBs, TPH, and PAHs. The following sections describe the delineation completed to date. Existing barriers along the site boundary, i.e., the bulkhead to the south and the Bayonne Bridge to the east, provide delineation endpoints. Delineation to the northern and western sections of the site

was evaluated based on analytical results. Analytical results were compared to the NJDEP RDCSCC, the Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC), and the Maximum and Average Contaminant Concentrations in Typical Historic Fill Material reported in the NJDEP TRSR Table 4.2 and Appendix D of the TRSR: Historical Fill Database Summary Table. The results were compared to the typical contaminant concentrations in Historical Fill Material because site investigation data indicate that historic fill material is present at the site.

### **Lead**

Figure 2 and Tables 1 and 2 summarize the results for lead. Lead analytical results reported in the numerous phases of investigation indicate that lead is present at greater concentrations in the interior-southern section of the site than along the northern and western boundaries. Lead concentrations in several soil samples from the interior-southern section of the site are greater than the maximum concentrations of lead (10,700 mg/kg) in Historic Fill Material. Lead concentrations along the northern and western site boundaries are less than the 400 mg/kg RDCSCC or consistent with lead concentrations in Historic Fill Material.

Lead in soil along the northern section of the site was horizontally delineated to concentrations less than the RDCSCC or consistent with lead concentrations in Historic Fill Material. Lead was detected at concentrations greater than 600 mg/kg at two locations, R3C-2 and R4C-2, with concentrations of 710 and 711 mg/kg, respectively. Lead in soil along the western section of the site was horizontally delineated to concentrations less than the RDCSCC.

Lead is vertically delineated by subsurface samples at locations CG-TX-B6, PR-1, CG-TX-B4 and CG-TX-B5. Additional samples are proposed to complete vertical delineation of lead in soil, as described in the sampling plan provided as Appendix C to this letter.

### **Copper**

Figure 3 and Tables 1 and 2 depict and summarize the results for copper. Copper in soil along the northern and western sections of the site was horizontally delineated to concentrations less than the RDCSCC. Copper is vertically delineated by subsurface samples at locations PR-1, PR-2, CG-TX-B2 and CG-TX-B1. Additional samples are proposed to complete vertical delineation of copper in soil, as described in the sampling plan provided as Appendix C to this letter.

### **Zinc**

Figure 3 and Tables 1 and 2 depict and summarize the results for zinc. Zinc in soil along the northern and western sections of the site was horizontally delineated to concentrations less than the RDCSCC. Zinc is vertically delineated by subsurface samples at locations PR-1, PR-3, CG-TX-B3, CG-TX-B2, CG-TX-B1 and R1C1-D0. Additional samples are proposed to complete vertical delineation of zinc in soil, as described in the sampling plan provided as Appendix C to this letter.

### **PCBs**

Figure 4 and Table 3 depict and summarize the analytical results for PCBs. PCBs in soil along the northern and western sections of the site was horizontally delineated to concentrations less than the RDCSCC. Horizontal delineation is completed to the north by sampling locations R2C2 and R5C2-

N0 and to the west by sampling locations R6C16-W0, R1C12, R1C10-W1, and R1C7. PCBs are vertically delineated by subsurface samples at locations CG-TX-B4 and R5C2. Additional samples are proposed to complete vertical delineation of PCBs in soil, as described in the sampling plan provided as Appendix C to this letter.

### **TPH**

Figure 5 and Table 4 depict and summarize the results for TPH. TPH in soil along the northern and western sections of the site was horizontally delineated to concentrations less than the RDCSCC. TPH is not vertically delineated at two locations, 3-B7 and 1-B9. Additional samples are proposed to complete vertical delineation of TPH in soil, as described in the sampling plan provided as Appendix C to this letter.

### **PAHs**

Figure 6 and Table 5 depict and summarize the results for PAHs. PAHs in soil along the northern and western sections of the site was horizontally delineated to concentrations less than the RDCSCC or consistent with PAH concentrations in Historic Fill Material. Benzo(a)pyrene (BaP) and Benzo(b)fluoranthene (BbF) were detected in only two perimeter samples at concentrations slightly greater than the 0.66 mg/kg RDCSCC for BaP and 0.9 mg/kg RDCSCC for BbF. BbF was detected at a concentration of 0.96 mg/kg in sample B-230 and BaP and BbF were detected at concentrations of 0.7 mg/kg and 1.1 mg/kg, respectively, in sample 2-B-19. Samples B-230 and 2-B-19 are located along the northern and western section of the site, respectively. PAHs are vertically delineated by subsurface samples at locations CG-TX-B2 and CG-TX-B4 at 3.5 feet bgs and 2 feet bgs, respectively. Additional samples are proposed to complete vertical delineation of PAHs in soil, as described in the sampling plan provided as Appendix C to this letter.

- c. Future use of the property includes redevelopment of the site with residential apartments and/or townhouses, commercial areas and open space. Engineering and institutional controls for site redevelopment consist of a minimum 18-inch thick soil barrier over the existing fill, building foundation and/or pavement, and a deed restriction to restrict access and exposure to soil with constituents at concentrations greater than the NJDEP RDCSCC. Additionally, the first floor of the apartment buildings are proposed open-air parking structures which will minimize potential vapor intrusion into living spaces.

Following completion of delineation as described in the sampling plan in Appendix C, a Remedial Action Work Plan will be prepared detailing the proposed remedial alternatives for the site.

## **2. Compliance Averaging**

NJDEP is requiring that CEMC:

- a. Explain assignment of areas of concern (AOCs) for the purpose of compliance averaging.
- b. Document what concentrations were utilized for compliance averaging and how elevated levels of contaminants detected on site have been delineated to the NJDEP RDCSCC.

- c. Document how every AOC has been addressed pursuant to the TRSR if CEMC proposes NFA for areas of the site without adequate institutional and engineering controls.

*CEMC Response:*

- a. AOCs and compliance averaging will no longer be pursued to demonstrate compliance with the NJDEP RDCSCC.
- b. See CEMC response I.2.a. above.
- c. See CEMC responses I.2.a. above.

3. Site Maps

NJDEP is requiring that CEMC:

- a. Submit site maps which depict all sample locations (historic to most recent as well as laboratory analyzed and field analyzed) with associated depths and contaminant concentrations (reported in mg/kg) pursuant to the TRSR.
- b. Include neighboring properties and surface water bodies on the site maps.

*CEMC Response:*

- a. Site maps and tables documenting historical to most recent sample locations and analytical results are provided with this response letter. See CEMC response I.1.a. above for a list of figures and tables.
- b. Neighboring properties and surface-water bodies are depicted on the site maps included with this response letter. See Figures in Appendix B.

4. Delineation via Contaminant Gradient – N.J.A.C. 7:26E-4.1(b)2

NJDEP is requiring that CEMC:

- a. Collect/submit confirmatory laboratory analyzed sample data for areas in which delineation via contaminant gradient has been utilized.
- b. Investigate why contaminant concentrations are increasing with depth in certain areas.

*CEMC Response:*

- a. Delineation via contaminant gradient will not be pursued to demonstrate compliance with the NJDEP RDCSCC.
- b. Increasing concentration with depth of certain constituents at some locations is attributed to demolition activities that took place during removal of onsite structures. It is believed that these activities resulted in mixing of soils, which affected vertical concentration gradients. No subsurface sources were found during previous investigations. Therefore, it is reasonable to expect that in the

absence of mixing, the constituents of concern (metals and PCBs) would be found at the highest concentrations in the shallow soil. Additional delineation activities proposed in the sampling plan in Appendix C will fill data gaps related to the depth of soil impacts and the vertical concentration profiles across the site.

## AOC Specific Comments

### General Background:

In a May 9, 2000 letter to Texaco, NJDEP set forth conditions "a" through "j" to comply with during the Remedial Investigation. NJDEP addresses conditions "a" through "j" and requests additional information according to these conditions as follows. NJDEP comments are presented in italic font and CEMC responses follow in regular text.

- a) *NJDEP requires the RIR to include a figure detailing all historical soil samples as well as samples collected in July and August 2000.*

The figures and tables submitted with this letter (response to comment I.1.a. and I.3.a.) provide a comprehensive summary of historical analyses, including the July and August 2000 soil quality data as requested in this comment.

- b) *NJDEP required that a minimum of two samples from each proposed boring (CG-TX-B1 through CG-TX-B6) undergo laboratory analysis. NJDEP acknowledges that this requirement has been met.*

No response required.

- c) *NJDEP required Synthetic Precipitation Leaching Procedure (SPLP) [SW-486 Method 1312] and pH analysis of all 12 soil samples at locations CG-TX-B1 through CG-TX-B6 (six locations and two samples from each location) collected during the RI. The NJDEP also requires SPLP analysis at three historical locations exhibiting the highest total priority pollutant (PP) metals concentrations.*

*The NJDEP acknowledges that the requirement for SPLP analysis at all six "CG-TX" locations has been met, however soil pH analyses were not conducted at locations CG-TX-B1 through CG-TX-B6, and the three historical locations exhibiting the highest total PP metals concentrations were not analyzed for pH and SPLP.*

Fourteen soil samples were collected in September 1995 for Toxicity Characteristic Leaching Procedure (TCLP) analysis which included pH measurements. The 14 samples were collected from locations across the site, providing a representative characterization of soil pH. The pH of these samples ranged from 7.4 to 9.5 (reported in the Quest Environmental Inc. *Laboratory Analytical Data Deliverables Soil Sample Results Report*, Former Pirelli Cable Company Property, Bayonne, New Jersey, January 24, 1996).

CEMC will collect the three SPLP and pH samples at the highest concentration areas during the upcoming sampling event. Please refer to the sampling plan in Appendix C.

- d) *NJDEP required analysis of all of the soil samples for hexavalent chromium. The NJDEP acknowledges that this requirement has been met.*

No response required.

- e) Soil sample location CG-TX-B2 shall be relocated immediately downgradient of the former oil/water separator. TPH and BN+15 shall be included in the analyses. The NJDEP acknowledges that this requirement has been met.*

No response required.

- f) NJDEP required CEMC to address the black slag reported in Appendix C of the November 1999 Site Sampling Plan. NJDEP requested a discussion of samples collected from these areas and an illustration of the extent of the black slag on a figure. CEMC did not address this issue in the May 15, 2001 RIR..*

Black slag was noted in the boring logs for wells IT-12, IT-13, and IT-14. The black slag will be further investigated during the proposed soil delineation sampling activities. The sampling results and extent of the slag will be discussed in the results report to be prepared when sampling is complete.

- g) The NJDEP defers the decision on the need for additional sampling until all historical data are submitted pursuant to the TRSR..*

CEMC is submitting historical sample results and additional delineation results, in accordance with the TRSR, to document horizontal delineation of COCs at the site. CEMC has prepared a sampling plan (included as Appendix C to this letter) to complete vertical delineation at the site.

- h) The NJDEP requires that all soil samples collected for VOC analysis must be field preserved with methanol or collected with an Encore™ sampler. The NJDEP acknowledges that this requirement has been met.*

No response required.

- i) The NJDEP strongly recommends the use of field screening, specifically XRF, for delineation purposes. NJDEP questions whether CEMC has used XRF field methods.*

CEMC has used screening methods for metals periodically during the soil investigation activities. CEMC has not used XRF field screening methods. As described in the *Preliminary Remedial Design Report and Phase V Sampling Plan* (IT Corporation, November 1991), screening was performed at IEA, Inc. laboratory in Whippany, New Jersey. Soil samples were digested with nitric and hydrochloric acid on a hot plate for 30 minutes and then analyzed by Inductively Coupled Plasma (ICP).

Table 2 (of Appendix B) presents results of screening analyses for lead, copper, and zinc and Table 1 presents laboratory analytical results following SW846 methodology. Figure 2 (of Appendix B) distinguishes between screening and analytical data by the symbols of each sample location as explained in the legend.

- j) The NJDEP requires that a baseline ecological evaluation (BEE) be submitted for the site.*

A BEE will be prepared for the former Pirelli site and submitted to the NJDEP by the end of 2004.



**Texaco/Pirelli Facility Areas:**

**Area A:**

NJDEP is requiring that CEMC:

- a) Present site data according to the TRSR. NFA cannot be determined for the site prior to documenting delineation pursuant to the TRSR.
- b) Submit an accompanying narrative with site maps which document how all constituents have been delineated to the NJDEP RDCSCC.

*CEMC Response:*

- a. As stated in response I 1.a., Figures 2 through 6 of Appendix B depict comprehensive historical soil sample locations and analytical results for lead, copper and zinc, PCBs, TPH, and PAHs, respectively. Horizontal delineation was completed on a site-wide basis. CEMC will pursue No Further Action (NFA) once delineation is completed, a deed restriction is recorded, and an NJDEP-approved remedial action is implemented at the site.
- b. See CEMC response I.1.b. above concerning delineation.

**Area B:**

NJDEP is requiring that CEMC:

- a) Present site data according to the TRSR. NFA cannot be determined for the site prior to documenting delineation pursuant to the TRSR.
- b) Clarify what remedial action, if any, is proposed for lead-impacted soil in this area.
- c) Horizontally delineate lead, arsenic, copper, and antimony and vertically delineate lead soil impacts detected at location CG-TX-B2. CEMC shall address elevated levels of antimony, copper, lead, and zinc detected in sample CG-TX-B3 (3-3.5'). CEMC attempts to delineate soil impacts vertically through data extrapolation. CEMC shall investigate the apparent trend of increasing constituent concentrations with depth and whether there was a subsurface source.

*CEMC Response:*

- a. As stated in response I 1.a. Figures 2 through 6 depict comprehensive historical soil sample locations and analytical results for lead, copper and zinc, PCBs, TPH, and PAHs, respectively. Delineation was completed on a site-wide basis. CEMC will pursue NFA once delineation is completed, a deed restriction is recorded, and an NJDEP-approved remedial action is implemented at the site.

- b. As stated in response I.1.c. following completion of delineation as described in the sampling plan in Appendix C, a Remedial Action Work Plan will be prepared detailing the proposed remedial alternatives for the site.
- c. See CEMC response I.1.b. above concerning delineation. Antimony and arsenic concentrations were not displayed on any of the figures and tables because only three soil sample locations had antimony and/or arsenic concentrations greater than the RDCSCC. A summary of metals analyses other than lead, copper and zinc is included in Table 7 of Appendix B. Only two soil samples (CG-TX-B2 and CG-TX-B3) out of 76 contained antimony concentrations greater than the RDCSCC for antimony (14 mg/kg) and the antimony concentrations in deeper samples at these locations were less than the RDCSCC. Only three soil samples out of 76 at two locations (CG-TX-B2 and 2-B21) contained arsenic concentrations greater than the RDCSCC for arsenic (20 mg/kg). Concentrations in the two deepest samples from these locations (20.8 mg/kg and 22.2 mg/kg) were only slightly greater than the RDCSCC. Other sample locations located around the CG-TX-B2, CG-TX-B3, and 2-B21 samples horizontally delineate antimony and arsenic to concentrations less than the RDCSCC. These samples include 2-B1, 2-B2, 2-B3, 2-B4, 2-B8, 2-B13, 2-B14, 2-B15, 2-B30, 2-B31, 2-B32, and 2-B33. Therefore, delineation of antimony and arsenic is complete.

As noted in response I.4.b. increasing concentration with depth of selected constituents at select locations is attributed to demolition activities that took place during removal of onsite structures. It is believed that these activities resulted in mixing of soils across depth layers, which affected vertical concentration gradients.

**Area C:**

NJDEP is requiring that CEMC:

- a) Present site data according to the TRSR. NFA cannot be determined for the site prior to documenting delineation pursuant to the TRSR. CEMC never defines remedial measures to allow unrestricted use of the area.
- b) Horizontally delineate lead and PCB impacts observed at location CG-TX-B4 and investigate the apparent trend of increasing constituent concentrations with depth. CEMC shall address elevated PAH levels detected in samples from location CG-TX-B4.
- c) Delineate the elevated levels of lead previously detected at a concentration of 54,000 ppm in this area.

*CEMC Response:*

- a. As stated in response I.1.a. Figures 2 through 6 depict comprehensive historical soil sample locations and analytical results for lead, copper and zinc, PCBs, TPH, and PAHs, respectively. Horizontal delineation was completed on a site-wide basis. CEMC will pursue NFA once delineation has been completed, a deed restriction is recorded, and an NJDEP-approved remedial action is implemented at the site.
- b. As stated in response I.1.b. Figure 2 depicts analytical data for lead detected in soil, Figure 4 depicts PCB data and Figure 6 depicts PAH data. As noted above in response I.4.b. increasing concentration

with depth of selected constituents at select locations is attributed to demolition activities that took place during removal of onsite structures. It is believed that these activities resulted in mixing of soils across depth layers, which affected vertical concentration gradients.

PAH impacts at CG-TX-B4 will be further investigated during vertical delineation activities proposed in the sampling plan in Appendix C.

- c. See CEMC response I.1.b. concerning the delineation of lead.

**Area D:**

NJDEP is requiring that CEMC:

- a) Compile site data in comprehensive manner. CEMC never defines remedial measures to allow unrestricted use of the area. CEMC shall clarify statements recommending no remediation based on the SPLP analytical results.
- b) CEMC shall address TPH impacts observed in samples from location CG-TX-B5.
- c) CEMC shall investigate the apparent trend of increasing TPH concentrations with depth. Subsurface detections indicate the source was not surficial discharge.
- d) CEMC shall complete delineation and then submit a proposal to remediate the contamination pursuant to the TRSR.

*CEMC Response:*

- a. As stated in response I 1.a. Figures 2 through 6 depict comprehensive historical soil sample locations and analytical results for lead, copper and zinc, PCBs, TPH, and PAHs, respectively. CEMC will pursue NFA once delineation is complete, a deed restriction is recorded, and an NJDEP-approved remedial action is implemented at the site.
- b. See CEMC response I.1.b. above concerning delineation.
- c. See CEMC response I.4.b. above concerning increasing constituent soil concentrations with depth. Increasing concentration with depth of certain constituents at some locations is attributed to demolition activities that took place during removal of onsite structures. It is believed that these activities resulted in mixing of soils, which affected vertical concentration gradients.
- d. See Soil Sampling Plan included as Appendix C to this letter. CEMC will submit a Remedial Action Work Plan once delineation of soil impacts is complete.

**Area E: Tank Basin 7495**

The NJDEP states that Tank Basin 7495 is part of another ISRA case #85108. NJDEP will present comments on this area in a response to the November 12, 2001 RAR, which is currently under NJDEP review.

*CEMC Response:*

CEMC understands that the NJDEP is reviewing this area under a separate ISRA case for the adjacent former TRMI facility; however, CEMC has utilized the extensive amount of soil quality data collected in this area to demonstrate completion of delineation efforts at the former Pirelli Cable Company facility. The figures and tables provided with this response letter in Appendix B depict and summarize the soil quality data gathered at the former Tank Basin 7495 area. Additionally, CEMC has proposed vertical delineation samples in the former Tank Basin 7495 as part of the former Pirelli site delineation sampling plan (Appendix C).

**II. Groundwater Comments**

NJDEP is requiring that CEMC:

- a. Install five permanent monitoring wells at the locations of previous soil borings CG-TX-B2, CG-TX-B3, CG-TX-B4, CG-TX-B5, and CG-TX-B6A to address metals detection above NJDEP Class II-A groundwater quality criteria (GWQC) during the August 2000 Geoprobe investigation.
- b. Sample all new wells for priority pollutant metals, volatile organic compounds plus 10 tentatively identified compounds (VOC+10), and ammonia.
- c. Provide well logs and "as-built" construction diagrams for each new well.
- d. Perform low-flow sampling in accordance with a pre-approved low-flow sampling plan.
- e. Use a bentonite slurry instead of bentonite pellets to seal future boreholes.

*CEMC Response:*

- a. To address NJDEP's concerns regarding groundwater quality, CEMC proposes to install five groundwater monitoring wells across the site. Figure D-1 of Appendix D presents the proposed well locations. Locations CG-TX-B2 (proposed well PMW-2) and CG-TX-B3 (proposed well PMW-3) were selected as well locations due to high concentrations of lead detected from unfiltered temporary well samples documented in the Remedial Investigation Report (Kemron, 2001). Location I31C (proposed well PMW-1) was selected as a well location to evaluate groundwater quality upgradient of monitoring wells IT-12 and IT-13 and downgradient of lead impacts in soil in the interior of the site. Locations R2C6 (proposed well PMW-4) and R3C9 (proposed well PMW-5) were selected as monitoring well locations to evaluate groundwater quality in areas where little to no metals impacts were observed in surface soils and to investigate TPH detections in CG-TX-B5. CEMC believes that existing wells GMW-1 and IT-14 are sufficient to monitor groundwater impacts from lead detected at locations CG-TX-B6A and CG-TX-B4, respectively.

Proposed wells PMW-1, PMW-2, and PMW-3 will be installed to 10 feet bgs using a drill rig and rotary auger techniques, and constructed with 2-inch diameter Schedule 40 polyvinyl chloride (PVC) 20-slot well screen and solid PVC raiser. The screens will be installed from 2 to 9 feet bgs. A sand filter pack will be placed around the well screen and a fine sand seal will be placed above the sand pack. The remainder of the annular space will be grouted to the surface and capped with concrete. Proposed wells PMW-4 and PMW-5 will be installed to 9 feet bgs with a screen from 1 to 8 feet bgs.

All wells will be developed by over pumping and surging until the groundwater is relatively clear or approximately 3 to 5 well volumes have been removed. Surging may be repeated as many times as necessary within the well screen interval until the groundwater is relatively clear.

Once groundwater and soil conditions at the site are understood, a Remedial Action Selection Report/Remedial Action Work Plan will be prepared and submitted to NJDEP.

- b. New wells will be sampled for metals, PP VOC +10, and ammonia for four quarters and then reevaluated.
- c. CEMC will provide well logs and "as-built" construction diagrams for each new well.
- d. CEMC will perform low-flow sampling in accordance with the low flow sampling plan submitted in the Revised Monitoring Plan (December 2000) and approved by the NJDEP in a letter dated May 24, 2001.
- e. CEMC will use a bentonite slurry to seal boreholes.

### **III. General Requirements**

NJDEP is requiring that CEMC:

- 1. Provide all future submittals in triplicate.
- 2. Submit a revised remedial action schedule.
- 3. Submit summarized analytical results in accordance with the TRSR.
- 4. Collect and analyze all samples in accordance with the NJDEP "Field Sampling Procedures Manual" and the TRSR.
- 5. Notify the assigned BEECRA case manager at least 14 days prior to implementation of all field activities.
- 6. Present all data as hard copy and electronic data deliverable (EDD).

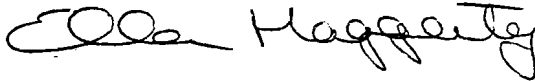
#### *CEMC Response:*

CEMC acknowledges and will comply with these general requirements. A revised remedial action schedule is included as Appendix E.

If you have any questions or comments, please contact Mike Coats of CEMC at (925)842-0466 (michaelcoats@chevrontexaco.com) or me at (609) 860-0590, extension 240 (emh@bbl-inc.com).

Sincerely,

BLASLAND, BOUCK & LEE, INC.



Ellen M. Haggerty, EIT  
Project Manager

EMH/APH/KRW/kpm  
Enclosure

cc: Mike Coats, Chevron Environmental Management Company  
John L. Persico, P.G., Blasland, Bouck & Lee, Inc.  
Alain P. Hebert, P.E., Blasland, Bouck & Lee, Inc.

## **APPENDIX A**



PIRELLI

McGreevey  
Governor

State of New Jersey  
Department of Environmental Protection

Bradley M. Campbell  
Commissioner

Jon Baldwin  
Texaco  
EHS Division  
PO Box 509  
Beacon, NY 12508

JUN 06 2002

RE: Memorandum of Agreement- Texaco Refining and Marketing Inc. (Texaco)  
236 West 1<sup>st</sup> Street, Bayonne City, Hudson County  
Case #E85108-M01  
Remedial Investigation Report dated May 31, 2001

Dear Mr. Baldwin:

Please be advised that the New Jersey Department of Environmental Protection (NJDEP) has completed its review of the above referenced Remedial Investigation Report (RIR). The NJDEP's comments regarding the Remedial Investigation Report are noted below:

**I Soil Comments**

General Comments

1. Texaco's proposal that the remedial investigation activities for the site are complete is unacceptable. This is based on Texaco's failure to delineate the elevated levels of all contaminants detected on site pursuant to the N.J.A.C. 7:26E Technical Requirements for Site Remediation (TRSR) and/or, in areas that are delineated, the failure to document how this was accomplished pursuant to the TRSR. Therefore, the proposal to submit a remedial action workplan (RAW) is premature at this time.

Be advised that Texaco has failed to submit the sampling results pursuant to the TRSR for the samples collected by Quest Environmental Services, Inc. (Quest) in 1995. The results were submitted in a table format but with no accompanying narrative or depiction on a site map pursuant to the TRSR. Texaco shall submit these results in accordance with the TRSR. These sampling results have indicated that in addition to previously known elevated levels of metals, PCBs have also been detected at elevated levels at the site. Be advised that the elevated levels of PCBs will not be allowed to remain on site, without appropriate evaluation and engineering controls, if the future use will be residential usage. Texaco shall delineate the elevated levels of PCBs and subsequently shall submit a proposal for their remediation pursuant to the TRSR. Additionally, Texaco shall delineate the elevated levels of all the contaminants detected by the sampling conducted by Quest pursuant to the TRSR. Further be advised that the NJDEP will not make any determination of no further action (NFA) for any areas of the site until all sample results have been submitted pursuant to the TRSR.



In addition to the samples collected by Quest in 1995 the NJDEP is also concerned that Texaco has not documented and addressed all of the sample results (479 soil samples) from the November 1991 "Preliminary Remedial Design Report and Phase V Sampling Plan Texaco Refining and Marketing Inc. Former Pirelli Cable" report. Texaco shall document all historical sample results and address them pursuant to the TRSR, particularly those sample locations which have not been previously documented and/or delineated pursuant to the TRSR.

Texaco indicates that as a result of past efforts the horizontal extent of affected soils has been determined. Be advised that this was not documented pursuant to the TRSR in the May 31, 2001 RIR. Future reports shall document via a narrative and site maps how all areas of concern (AOCs) have been delineated to the NJDEP's residential direct contact soil cleanup criteria (RDCSCC) pursuant to the TRSR.

Furthermore, Texaco is advised that the proposals for NFA for soils, without the use of institutional controls (i.e. Deed Notice) and engineering controls, included in the May 31, 2001 RIR were completely unexpected by the NJDEP particularly in light of the meeting held on March 29, 2001, whereby the NJDEP was informed that residential use was a planned future use for the site. The NJDEP had expected, at a minimum, a proposal for site wide capping with an institutional control (i.e. Deed Notice) for the protection of human health and the environment based on the proposed future use of a site that is contaminated with such elevated levels of contaminants. In the future it may be advisable for Texaco to inform the NJDEP of their desire to receive NFA for soils without adequate engineering and institutional controls. If Texaco had communicated their intentions to the NJDEP prior to the submission of the May 31, 2001 RIR, the NJDEP could have advised Texaco that the proposals for the site would not have been acceptable based on the elevated levels of contaminants detected on site coupled with the site's projected residential use. As such, the May 31, 2001 RIR is of limited value in achieving the goal of remediating the site for eventual redevelopment to residential use. Be advised that the NJDEP is always available to discuss any proposed remedial activities for the site, whether they be via teleconference or in person at the site and/or the NJDEP offices in Trenton.

#### Compliance Averaging

2. Texaco has proposed to utilize Compliance Averaging via the arbitrary assignment of areas of concern (AOCs) to address the elevated levels of lead detected on the site. Texaco also eliminated "hot spots" when determining average lead concentrations. The proposal is unacceptable as Texaco cannot arbitrarily assign AOCs for the purpose of Compliance Averaging particularly a site as large as the Texaco site, which is proposed for residential redevelopment. Nor can Texaco eliminate the highest concentrations in order to lower the average concentration of a contaminant. Texaco also failed to indicate how the averages were determined as they did not document what concentrations were utilized for the averages. In addition, Compliance Averaging cannot be utilized as Texaco has failed to document how the elevated levels of contaminants detected on site have been delineated to the NJDEP's residential direct contact soil cleanup criteria (RDCSCC).

If Texaco wishes to propose NFA for areas of the site without adequate institutional and engineering controls then Texaco shall document how every AOC has been addressed pursuant to the TRSR. And Texaco shall be advised that this does not include the arbitrary assignment of AOCs as was completed in the RIR.

After the site has been delineated and if Texaco wishes to utilize Compliance Averaging again, for the purpose of hastening the remediation of the site, Texaco is strongly encouraged to first discuss the use of Compliance Averaging with the NJDEP prior to the submission of a proposal for its use.

#### Site Maps

3. Texaco shall submit site maps which depict **all** the sample locations (historic to most recent) on the site with their associated depths and contaminant concentrations (reported in milligrams per kilograms) pursuant to the TRSR. Be advised that NJDEP's May 9, 2000 letter previously required Texaco to submit figures (i.e. site maps) which include all soil sample results including the most recent and historical as well as lab analyzed and field analyzed. This requirement is particularly significant as previously undocumented data (See item 1 above) with elevated levels of PCBs and lead have not been submitted to the NJDEP pursuant to the TRSR. Further be advised, that without these site maps Texaco cannot demonstrate that the contamination at the site has been vertically and horizontally delineated pursuant to the TRSR. The failure to submit these maps rendered the RIR ineffective as a means of documenting the delineation of all the contaminants detected on site. In addition, to the depiction of all sample locations with their associated depths and contaminant concentrations, Texaco shall include the neighboring properties and surface water bodies on the site maps, as is done with the site maps for their adjacent Texaco ISRA case E85108, for ease of review and to determine if any contaminants have migrated to neighboring properties.

#### Delineation via Contaminant Gradient- N.J.A.C. 7:26E-4.1(b)2

4. Be advised that Texaco has misinterpreted the of usage of contaminant gradient for delineation purposes as specified at N.J.A.C. 7:26E-4.1(b)2. As indicated in the TRSR the approximate limits of contamination may be reasonably estimated by extrapolation to complete the remedial investigation. In some instances this was completed by Texaco. However as stated at N.J.A.C. 7-26E4.1(b)2ii when a contaminant gradient is used to estimate limits of contamination, the extent of the contamination above the applicable unrestricted use remediation standard shall be confirmed using laboratory analysis prior to the completion of a remedial action. Texaco has not collected the confirmatory laboratory analyzed sample. As no remedial action with subsequent confirmation sampling has been proposed, any area in which this delineation method has been utilized needs confirmation sampling and is not considered delineated pursuant to the TRSR.

Additionally, in some instances, Texaco utilizes this delineation method at areas where the contaminant is increasing with depth. In these instances there is no decreasing contaminant gradient and thus the contaminant has not been delineated pursuant to the TRSR. In fact, not only are these areas not delineated pursuant to the TRSR they also need additional investigation to determine why the contaminant concentration is increasing with depth.

## AOC Specific Comments

### General Background:

Kemron states that six soil borings with depths ranging from 3 to 5 feet were installed at the Texaco/Pirelli facility. The locations of these soil borings were selected based on the results of the previous nine sampling events and were biased towards the areas of highest known affected soils. The soil boring locations were marked at the Texaco/Pirelli facility on July 31, 2000 and were located using measuring tape and the existing monitoring well locations at the Texaco/Pirelli facility.

In the NJDEP letter of May 9, 2000 addressed to Texaco, the Department, under I. 1. sets forth conditions "a" through "j" that Texaco shall comply with in carrying out the Remedial Investigation (RI). In the May 15, 2001 RIR, Texaco states that six soil borings will be conducted at locations CG-TX-B1 through B6 as indicated on Figure 4-1. Texaco then proceeds to divide the Texaco/Pirelli facility into five areas (A, B, C, D and E) and discuss the RI in terms of these five areas. Within this section, NJDEP shall consider first the Texaco responses to the requirements "a" through "j" in the NJDEP letter of May 9, 2000 and then address the five areas, A, B, C, D and E.

### NJDEP Requirements:

"a" *The RIR that is to be submitted shall be comprehensive in nature, that is, figures as well tables shall be submitted which include all soil sample results - most recent and historical as well as lab analyzed and field analyzed.*

Texaco has not submitted the requested figures showing both historical analyses as well as the analyses for soil samples collected in July and August 2000. The tables submitted showing historical analyses do not have corresponding figures showing the locations of these results either in relation to previous designated AOCs or the current AOCs of areas A, B, C, D and E. The figures submitted under the AOCs A, B, C, D and E show depth of samples versus concentration. The figures do not show locations of samples in regard to the physical settings at the Texaco/Pirelli facility. This does not meet New Jersey regulatory requirements for RIRs as set forth in Technical Requirements for Site Remediation (TRSR) at N.J.A.C. 7:26E-4.8. Texaco shall submit the required figures as previously requested in the May 9, 2000 NJDEP letter.

"b" *In regard to all proposed sample locations (CG-TX-B1 through B6), it appears that samples will be collected at each six-inch increment to the water table. This is acceptable; however, a minimum of two samples shall be analyzed from each proposed boring. Depths shall be 1) at the location where discoloration and/or high field readings are observed and 2) 0 to 6" above the water table.*

Texaco has complied with this requirement in that each of the six-inch soil increments from 0 to 6" to the six-inch soil increment above the water table were analyzed.

"c" *In reference to impact to groundwater concerns, soil samples shall be analyzed for pH and SW-846 method 1312, Synthetic Precipitation Leaching Procedure (SPLP) at all six sample locations. This would equate to a total of 12 SPLP (for PP Metals) and pH samples. Depths would be the highest field reading (and/or discoloration) six-inch increment and 0 to 6" above the water table. It is also recommended that a groundwater sample be collected at these six sample*

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*locations. In addition, three historical sample locations exhibiting the highest total PP Metals levels shall be re-sampled for SPLP and pH.*

Texaco has conducted the analyses for PP Metals by the SPLP for all six sample locations. The results for Area A are listed in Table 8-3, May 15, 2001 RIR; for Area B in Table 8-5; for Area C in Table 8-7; for Area D in Table 8-9 and for Area E in Table 8-11. Apparently, the pHs for the soil samples were not conducted and the analyses for PP Metals by SPLP and for pH in three historical sample locations also was not conducted.

"d" *In addition to the proposed analytical parameters and those required above, Texaco shall analyze all of the soil samples for hexavalent chromium.*

Texaco conducted the required hexavalent chromium soil analyses. This requirement has been met.

"e" *In reference to the proposed sample location CG-TX-B2, it shall be re-located "immediately" downgradient of the former oil/water separator, not 100' south as depicted on Figure 1.1. Also, TPHCs and BN+15 shall be included as parameters.*

According to Figure 4-1, May 15, 2001 RIR, the soil sampling for CG-TX-B2 was conducted immediately downgradient of the former oil/water separator and not 100' to the south. In addition to the analyses for PP Metals, Texaco had the soil samples analyzed for TPHCs and BN+15. This requirement has been met.

"f" *Appendix C (Monitor Well documentation) indicated the presence of black slag. Therefore, a discussion shall be presented as to whether the slag was previously sampled. At this time, the extent (vertical and horizontal) of the slag shall be depicted on a figure.*

Texaco has not addressed this issue in the May 15, 2001 RIR. The NJDEP requires Texaco to provide the above requested information described in the NJDEP letter of May 9, 2000.

"g" *Deeper sampling (below the water table) may be required in the future, based upon the proposed sample results as well as historical sample results (as discussed in the forthcoming RIR).*

The decision on the need for deeper sampling is deferred until all sample results have been submitted pursuant to the TRSR.

"h" *This requirement concerns soil collection procedures. It notes that soil samples for VOCs shall be collected and either immediately preserved with methanol or collected using an EnCore ® sample following the instructions for the proper use of that device.*

This requirement has been met.

"i" *Field methods, namely XRF, are strongly recommended for delineation purposes.*

It is not clear that Texaco used XRF field methods. The NJDEP requests a clarification from Texaco concerning this issue.

"j" *Texaco shall submit a Baseline Ecological Evaluation (BEE), pursuant to N.J.A.C. 7:26E-3.11, for the site.*

Texaco, in Section 2.8 (page 2-11) of the May 15, 2001 RIR discusses the Wetlands Classification for this facility and the Wildlife Habitat status, also. It is not clear whether this is in response to the Department's request for a BEE. In any case, Section 2.8 does not supply the requested information. Texaco shall conduct a BEE in accordance with the TRSR at N.J.A.C. 7:26E-3.11 and submit this evaluation to the NJDEP for review.

#### Texaco/Pirelli Facility Areas:

##### Area A:

Texaco describes Area A as including much of the central portions of the Texaco/Pirelli facility and the entire northern portion. The total area of Area A is approximately 418,056 square feet or 9.6 acres. Texaco states that, with the exception of a few isolated soil samples having elevated metals concentrations, Area A does not contain high concentrations of contaminants in soils. The past investigations have shown the soils in Area A to be only slightly affected by metals. Table 8-2 shows the concentrations of heavy metals in the soils of Area A at different depths. This table shows that the average concentration of heavy metals throughout Area A, in each of the three subsurface depth intervals, is below the target residential cleanup standard. Therefore, no further studies or remediation are recommended for Area A based on ingestion or direct contact with the soils.

In Table 8-3, Texaco presents data in regard to the PP Metals results from the SPLP for Area A soil samples. The values in Table 8-3 are present in concentrations that do not exceed the health-based standards. Therefore, Texaco concludes that the soils in Area A do not present a threat to potential receptors due to the leaching of heavy metals into the ground waters. Therefore, no remediation is recommended for this area on the basis of potential ground water contamination.

*NJDEP Comments:* The proposal for NFA is unacceptable at this time as Texaco has not presented the data conducted since 1990 from this area on site maps pursuant to the TRSR. Additionally, be advised, that the NJDEP will not make any determinations of NFA until Texaco submits all the sample results from the site pursuant to the TRSR and subsequent documentation that the area has been delineated pursuant to the TRSR. As this area of concern was arbitrarily determined by Texaco, the use of Compliance Averaging for this area is unacceptable. Texaco shall submit the appropriate tables and figures to the NJDEP showing all the data conducted for Area A as was previously required by the NJDEP's letter dated May 9, 2000. In addition Texaco shall submit an accompanying narrative with the site maps which document how all of the contaminants detected in this area have been delineated to the NJDEP's RDCSCC pursuant to the TRSR.

##### Area B:

Area B consists of the extreme southern portion of the Texaco facility, and is bordered to the south by the Kill van Kull. The total area of Area B is approximately 154,410 square feet or 3.54 acres.

Texaco states that past investigations have shown the soils in Area B to be moderately affected by metals. The recent RI identified one location (CG-TX-B2) that showed lead in the surface soils at a concentration (98,000 ppm at 0 to 0.5 feet bgs) that greatly exceeded the concentrations found at other locations throughout Area B. Table 8-4 summarizes the concentrations of PP Metals in the soils of Area B at different depths. Texaco states that the lead concentration decreases from the surface to a minimum at approximately 1.5 to 2 feet bgs. Then the lead concentration in the soils

increases until approximately 3 to 3.5 feet bgs. Finally, the lead concentration in the soils decreases at depths below 3.5 feet.

Texaco further states that an appropriate cleanup strategy for the soils in Area B would consist of addressing the surface soils in three sub-areas of Area B to eliminate the highest concentrations of lead in the upper one foot of soil. Elevated levels of lead are not then encountered throughout Area B until a depth of approximately 3 feet bgs.

In Table 8-5, Texaco presents the data from the SPLP analyses for PP Metals in soil samples from soil borings CG-TX-B2 and B3. Texaco states that Table 8-5 shows that none of the heavy metals in the SPLP leachate are present in concentrations that exceed the health-based standards. Therefore, it can be concluded that the soils in Area B do not present a threat to potential receptors due to the leaching of heavy metals into the ground waters. Therefore, no remediation is recommended for this area on the basis of potential ground water contamination.

*NJDEP Comments:* Texaco shall submit the complete figures and tables which include all soil sample results - most recent and historical as well as lab analyzed and field analyzed as was previously required by NJDEP's May 9, 2000 letter. As site maps which include the depth and concentration of contaminants detected in this area have not been submitted the NJDEP does not have sufficient information to determine whether Texaco's NFA proposal is acceptable. Compliance averaging cannot be utilized for this area for the reasons indicated above.

Texaco suggests that some lead "hotspots" may be remediated but does not depict their locations on a site map pursuant to the TRSR. Texaco then recommends no remediation based on the SPLP analytical results. Texaco shall clarify these statements.

Texaco shall horizontally and vertically delineate the elevated levels of lead (98,700 ppm) detected at soil boring CG-TX-B2 at a depth of 0-0.5'. After the area has been delineated Texaco shall remediate the extremely elevated levels of lead detected in this area. Texaco attempts to use the extrapolation of sample results for vertical delineation, but after a decrease, the concentration of lead increases with depth. As a decreasing concentration gradient cannot be established, the vertical delineation is not complete. Additionally, Texaco has not collected confirmatory samples as required pursuant to N.J.A.C. 7-26E 4.1(b)2ii. Texaco shall also investigate the reason for the increase in lead contamination with depth at this boring.

Texaco shall horizontally delineate the elevated levels of arsenic, copper and antimony detected at soil boring CG-TX-B2. Texaco shall also address the elevated levels of PAHs detected at this soil boring pursuant to the TRSR.

Texaco shall address the "hot spot" detected at a depth of 3-3.5' at soil boring CG-TX-B3 which contains elevated levels of antimony, copper, lead and zinc pursuant to the TRSR. As the surficial samples are clean for the metals, excluding lead, Texaco shall investigate the source of the elevated levels of contamination at the depth of 3-3.5', including whether there is a subsurface source of the contamination. The use of a concentration gradient cannot be utilized to delineate as previously stated for areas in which the concentration of contaminants increase with depth.

In summation Texaco shall delineate all the elevated levels of contaminants detected in this area and document their completion via a narrative and site maps pursuant to the TRSR. After the elevated levels of contaminants have been delineated in this area, Texaco shall submit a proposal to remediate the contamination pursuant to the TRSR.

### Area C:

Area C is a 28,675 square foot or 0.7 acre area approximately rectangular in shape situated approximately two-thirds of the distance from the northern boundary of the property along the border between the Texaco/Pirelli facility and the Port Authority property.

Table 8-6 shows the summaries of the analyses conducted for PP Metals in Area C. This table shows that only lead is present in the soils at concentrations that exceed the NJDEP cleanup criterion for residential exposure. The soils in the upper two feet show lead to be present at concentrations that exceed the NJDEP cleanup criterion. Texaco states that soils deeper than two feet from the surface do not contain lead concentrations that exceed the NJDEP cleanup criterion. Texaco does not discuss the elevated PAHs found in some soil samples from soil boring CG-TX-B4. The company does state that the analytical results (for lead) of the soil samples taken at Area C indicate that the upper two feet of soil requires some form of remedial measure to allow unrestricted use of the area.

In Table 8-7, the analytical results for the SPLP are summarized for soil samples from soil boring CG-TX-B4. Texaco states that Table 8-7 shows that none of the heavy metals in the SPLP leachate are present in concentrations that exceed the health-based standards. Therefore, it can be concluded that the soils in Area C do not present a threat to potential receptors due to the leaching of heavy metals into the ground waters. Therefore, no remediation is recommended for this area on the basis of potential ground water contamination.

*NJDEP Comments:* Texaco shall submit the complete figures and tables which include all soil sample results - most recent and historical as well as lab analyzed and field analyzed as was previously required by NJDEP's May 9, 2000 letter. As site maps which include the depth and concentration of contaminants detected in this area have not been submitted, the NJDEP does not have sufficient information to determine whether Texaco's proposal for this area is acceptable. Compliance averaging cannot be utilized for this area for the reasons indicated above.

Texaco indicates that the upper two feet of soil requires some form of remedial measure to allow unrestricted use of the area. However, Texaco never defines these remedial measures more fully. Texaco then recommends no remediation based on the SPLP analytical results. Texaco shall clarify these statements.

Texaco shall investigate why the levels of lead and PCBs increase with depth at boring CG-TX-B4 and horizontally delineate the contamination pursuant to the TRSR. Texaco shall determine whether there is a subsurface source for the elevated levels of PCBs and lead. Additionally, Texaco shall address the elevated levels of PAHs detected at boring CG-TX-B4

Texaco shall delineate the elevated levels of lead previously detected at a concentration of 54,000 ppm pursuant to the TRSR.

In summation, Texaco shall delineate all the elevated levels of contaminants detected in this area and document their completion via a narrative and site maps pursuant to the TRSR. After the elevated levels of contaminants have been delineated in this area, Texaco shall submit a proposal to remediate the contamination pursuant to the TRSR.

### **Area D:**

Area D is a 21,677 square foot or 0.5 acre area approximately rectangular in shape situated in the north-central portion of the Texaco/Pirelli facility, just west of the north-south centerline of the property.

Table 8-8 summarizes the results for soil samples analyzed for PP Metals in Area D. Texaco states that Table 8-8 shows that only lead is present in the soils in Area D at concentrations that exceed the NJDEP cleanup criterion for residential exposure. In general, the soils in the upper two feet show lead to be present at concentrations that exceed the NJDEP cleanup criterion. Soils deeper than two feet bgs do not contain lead concentrations that exceed the NJDEP cleanup criterion. Texaco states that the analytical results of the soil samples taken at Area D indicate that, in general, the upper foot of soil requires some form of remedial measure to allow unrestricted use of the area.

In Table 8-9, Texaco summarizes the results from the SPLP for PP Metals in soil samples from soil boring CG-TX-B5. Table 8-9 shows that none of the heavy metals in the SPLP leachate are present in concentrations that exceed the health-based standards. Therefore, it can be concluded that the soils in Area D do not present a threat to potential receptors due to the leaching of heavy metals into the ground waters. Therefore, Texaco concludes that no remediation is recommended for this area on the basis of potential ground water contamination.

*NJDEP Comments:* Texaco shall submit the complete figures and tables which include all soil sample results - most recent and historical as well as lab analyzed and field analyzed as was previously required by NJDEP's May 9, 2000 letter. As site maps which include the depth and concentration of contaminants detected in this area have not been submitted, the NJDEP does not have sufficient information to determine whether Texaco's proposal for this area is acceptable. Compliance averaging cannot be utilized for this area for the reasons indicated above.

Texaco indicates the upper foot of soil requires some form of remedial measure to allow unrestricted use of the area. Further, the upper two feet of soil in the north-central portion of Area D may require some remedial measures to a depth of 2 feet bgs to support unrestricted use. However, Texaco never defines these remedial measures more fully. Texaco then recommends no remediation based on the SPLP analytical results. Texaco shall clarify these statements.

Texaco shall address the elevated TPHC levels found in CG-TX-B5 at 3 to 3.5 feet bgs (36,800 ppm) and at 4 to 4.5 feet bgs (28,900 ppm) pursuant to the TRSR. As a part of this investigation Texaco shall document the source of the TPHC discharge as the surface samples are clean for TPHC while elevated levels of TPHC are detected at depth indicating that it is not a surficial discharge.

In summation, Texaco shall delineate all the elevated levels of contaminants detected in this area and document their completion via a narrative and site maps pursuant to the TRSR. After the elevated levels of contaminants have been delineated in this area, Texaco shall submit a proposal to remediate the contamination pursuant to the TRSR.

### **Area E: Tank Basin 7495**

*NJDEP Comments:* Be advised that due the fact that Tank Basin 7495 is a part of the Texaco ISRA case #85108 the NJDEP will provide comments on this AOC with comments for the November 12, 2001 Remedial Action Report which is currently under NJDEP review.



## II Ground Water Comments

In section II. of its May 9, 2000 letter (Ground Water Comments), NJDEP had approved the proposal for groundwater sampling at the Pirelli property with the following conditions:

- Because the last sampling had been conducted about five years ago, all existing wells were to be sampled for PPM and VOCs;
- Low-flow purging and sampling was approved only for metals, and well logs were to be provided for several wells along with the rationale for selection of the sampling intervals in each well;
- Since a Geoprobe was going to be used for soil delineation sampling in several locations previously identified as the most contaminated, Geoprobe groundwater sampling was to be conducted and samples were to be analyzed for VOCs and PPM. The results of all historical and recent monitoring data was to be presented in tabular form.

Note that the results of permanent well sampling were submitted as part of a December 11, 2000 RAR for the Texaco ISRA case #E85108. Sampling of all permanent wells on the Bayonne Terminal and Pirelli properties was performed in August 2000 in support of proposed natural attenuation for the entire Bayonne site. With the exception of 3.1 part per billion (ppb) TCE identified in IT-14, no other VOCs were identified above applicable standards in any permanent Pirelli wells. Low-flow sampling for PPM revealed the presence of 80.1 ppb lead, and 10.6 ppb arsenic in IT-14.

### Geoprobe Ground Water Sampling

Groundwater samples were collected on August 1-2, 2000 from seven locations using a direct-push Geoprobe sampling device. The locations were biased towards areas where highest soil contamination had been detected during previous investigations to determine whether groundwater contamination was present in these areas. One of these locations was in the vicinity of former tank basin 7495 on the Texaco Terminal property, where elevated lead levels had been detected in the soils. One Geoprobe sample was obtained near the former oil water separator, where both metals and organics were identified above the applicable soil cleanup criteria. Ground water was encountered at depths ranging from 0.5 to 4 feet bgs.

Geoprobe samples were collected using polyethylene tubing and a peristaltic pump. Because high turbidity was expected in the areas that had exhibited the highest metals contamination in soils, both filtered and unfiltered samples were collected for analysis. Turbidity was also measured in the unfiltered samples. Field and trip blanks were used as measures of QC. Following sample collection, each boring was sealed using bentonite clay pellets.

*Results:* In every sample location, analyses of the unfiltered samples disclosed much higher levels of metals than were found in the filtered samples. High turbidity (385 – 23,200 NTU) was measured in all the unfiltered samples. In the unfiltered samples, arsenic (up to 591 ppb), beryllium (29.3 ppb), cadmium (up to 82.6 ppb), chromium (up to 1780 ppb), copper (up to 55,800 ppb), lead (up to 154,000 ppb), mercury (up to 109 ppb), nickel (up to 860 ppb), and zinc (up to 511,000 ppb) were identified in excess of the Class IIA groundwater quality criteria. In the filtered samples, antimony (23.2 ppb), cadmium (5.6 ppb), lead (10.4 – 172 ppb), and zinc

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(15,100 ppb) exceeded the Class IIA criteria. Note that the highest total filtered and unfiltered metals concentrations were found in the sample location with the lowest turbidity (CG-TX-B3). Low levels of lead, mercury, and zinc were also detected in the field blank.

*Texaco's Proposal:* The RIR presents the results of the Geoprobe investigation but does not propose installation of permanent wells to confirm Geoprobe results.

*NJDEP Comments:* NJDEP notes that the Geoprobe samples were not analyzed for VOCs, as was required in NJDEP's May 9, 2000 letter. VOC sampling had been required to determine whether the chlorinated VOCs (TCE and trans-1,2 DCE) that have been detected in permanent well IT-14 during previous sampling events are present in other areas of the site, and to verify whether contaminants from the upgradient Bayonne Terminal site have migrated onto the former Pirelli property.

Although the results of the metals analyses in the filtered samples are significantly lower than the unfiltered samples, metals in excess of the Class IIA ground water quality criteria were identified in several of the filtered samples (CG-TX-B2, CG-TX-B3, and CG-TX-B4, and CG-TX-B6A). In the filtered samples, several metals that did not exceed the criteria were detected at concentrations just below the standard. Texaco is advised that NJDEP does not consider the results of filtered samples as representative of metals that are mobile in the aquifer. This is because the act of filtering may introduce aeration and alter the valence states of some inorganics (ex. iron) and because, since the samples are turbid, the filter paper and filter cake that accumulates during filtration could absorb dissolved metal ions resulting in sample results that are biased low. In addition, New Jersey's Ground Water Quality Standards and drinking water standards are based on total metals concentrations. While Texaco is correct in referencing NJDEP's 1992 *Field Sampling Procedures Manual* suggestion that sample filtration may be useful in some monitoring programs, in more recent years, the commonly accepted practice in cases where dissolved metals concentrations are in question due to excessive sample turbidity has been use of the low-flow purging and sampling method. Proper sampling using the low-flow method helps to ensure that constituents that are actually mobile in the aquifer are accurately represented in a groundwater sample.

NJDEP encourages the use of Geoprobe groundwater sampling as a preliminary screening tool that aids in optimal placement of permanent sampling wells. NJDEP recognizes that a disadvantage of Geoprobe sampling is that samples are turbid, and that low-flow methods cannot be used during Geoprobe sampling. The results of Geoprobe sampling at the Pirelli site reveal that exceedances of the Class IIA criteria for metals occur in both filtered and unfiltered samples at several boring locations. The "true" concentrations of mobile metals are probably lower than the concentrations in the unfiltered samples, but may be significantly higher than in the filtered samples for reasons stated in the preceding paragraph. Also, as stated above, VOC analyses were not conducted as was required in NJDEP's May 9, 2000 letter. Therefore, permanent monitoring wells will be required to verify whether elevated dissolved metals are present in the areas where unfiltered and filtered Geoprobe results were above standards (CG-TX-B2, CG-TX-B3, CG-TX-B4, and CG-TX-B6A), and to determine whether VOCs are present. A permanent well shall also be installed at the CG-TX-B5 location because high TPHC levels were disclosed below the water table, which occurs at 0.5' at this location.

All new wells are to be installed pursuant to N.J.A.C. 7:26E-4.4(g) following construction requirements described in the NJDEP's 1992 *Field Sampling Procedures Manual*, and in conformance N.J.A.C. 7:9D, Well Construction and Maintenance; Sealing of Abandoned Wells. Detailed well logs and "as built" construction diagrams are to be submitted for each well. Flush-

mounted wells should be considered since future development of the property is planned. All new wells are to be sampled for PPM, VOC +10, and for ammonia. NJDEP recommends that low-flow sampling be employed for metals only. Note that pre-approval of a low-flow sampling plan is required prior to implementation. Texaco is referred to EPA's guidance on low-flow sampling and to the article entitled "The Low-Down on Low Flow" in the November 1997 *Site Remediation News* in developing a plan.

For future reference, Texaco is advised that the use of bentonite pellets is an unacceptable method of sealing boreholes. This is because incomplete hydration of the pellets may occur, resulting in an incomplete seal. This is of particular concern above the water table. Therefore, Texaco shall use a bentonite slurry for sealing boreholes.

### III General Requirements

1. Texaco shall submit the results or additional work plans, in triplicate. Please note that only one copy of the Quality Assurance/Quality Control Deliverables is needed.
2. Texaco shall submit a revised Remedial Action Schedule, pursuant to N.J.A.C. 7:26E-6.5, for NJDEP approval which includes all tasks associated with the remediation of the site within thirty (30) calendar days of the receipt of this letter.
3. Texaco shall submit summarized analytical results in accordance with the Technical Requirements For Site Remediation (TRSR), N.J.A.C. 7:26E.
4. Texaco shall collect and analyze all samples in accordance with the sampling protocol outlined in the May, 1992 edition of the NJDEP's "Field Sampling Procedures Manual" and the TRSR, N.J.A.C. 7:26E.
5. Texaco shall notify the assigned BEECRA Case Manager at least 14 calendar days prior to implementation of all field activities.
6. Pursuant to the TRSR, N.J.A.C. 7:26E-3.13(c)3v, all analytical data shall be presented both as a hard copy and an electronic deliverable using the database format outlined in detail in the current HAZSITE application or appropriate spreadsheet format specified in the NJDEP's electronic data interchange manual.

For further information related to electronic data submissions, please refer to the Site Remediation Program's (SRP's) home page at the following internet address: <http://www.state.nj.us/dep/srp>. The **Regulations and Guidance** page of this web site has a section dedicated to HazSite which includes downloadable files, an explanation of how to use these files to comply with the NJDEP's requirements, the SRP's Electronic Data Interchange (EDI) manual, and **Guidance for the Submission and Use of Data In GIS Compatible Formats Pursuant to "Technical Requirements for Site Remediation"**.

If you have any questions, please contact the Case Manager, Joseph J. Nowak, at (609) 292-0130.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael A. Justiniano", with a long horizontal line extending to the right.

Michael A. Justiniano, Supervisor  
Bureau of Environmental Evaluation,  
Cleanup and Responsibility Assessment

c: Sonya Rozansky, NJDEP/BEERA  
Elizabeth Fernandez-Obregon, NJDEP/BGWPA

## **APPENDIX B**

**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				1-A1 0.0 - 0.5 5/17/1987 SOIL	1-A2 0.0 - 0.5 5/17/1987 SOIL	1-A3 0.0 - 0.5 5/17/1987 SOIL	1-A4 0.0 - 0.5 5/17/1987 SOIL	1-B1 1.5 - 2.0 5/17/1987 SOIL	1-B2 1.5 - 2.0 5/17/1987 SOIL	1-B3 1.5 - 2.0 5/17/1987 SOIL	1-B4 1.5 - 2.0 5/17/1987 SOIL	1-B5 0.5 - 1.0 5/17/1987 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	290	47	250	690	1200	37	350	5600	16
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				1-B6 1.5 - 2.0 5/17/1987 SOIL	1-B7 1.5 - 2.0 5/17/1987 SOIL	1-B8 1.5 - 2.0 5/17/1987 SOIL	1-B9 0.5 - 1.0 5/17/1987 SOIL	1-B10 1.5 - 2.0 5/17/1987 SOIL	1-B11 1.5 - 2.0 5/17/1987 SOIL	1-B12 1.5 - 2.0 5/17/1987 SOIL	1-B13 1.5 - 2.0 5/17/1987 SOIL	1-B14 1.5 - 2.0 5/17/1987 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	96	120	470	2400	98	72	13	280	3700
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				1-B15 1.5 - 2.0 5/17/1987 SOIL	1-B16 1.5 - 2.0 5/17/1987 SOIL	1-B17 0.0 - 0.5 5/17/1987 SOIL	1-B18 1.5 - 2.0 5/17/1987 SOIL	1-B19 1.5 - 2.0 5/17/1987 SOIL	1-B20 0.0 - 0.5 5/17/1987 SOIL	1-B21 1.5 - 2.0 5/17/1987 SOIL	1-B22 1.5 - 2.0 5/17/1987 SOIL	1-B23 1.5 - 2.0 5/17/1987 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	12	91	140	18	350	4	360	160	310
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**TEXACO - PIRELLI**  
**FORMER PIRELLI CABLE COMPANY**

SAMPLE ID				1-E1	1-E2	1-E3	2-B1	2-B2	2-B3	2-B4	2-B5	2-B6
SAMPLE DEPTH (FEET)				1.0 - 1.5	1.5 - 2.0	1.5 - 2.0	NA	NA	NA	NA	NA	NA
DATE COLLECTED				12/29/1987	12/29/1987	12/29/1987	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	11000	740	1200	727	16.4	1280	862	1960	2170
Copper	600	600	NA	NR	NR	NR	138	15.1	228	114	476	623
Zinc	1500	1500	NA	NR	NR	NR	213	38	389	179	1630	685

SAMPLE ID				2-B7	2-B8	2-B9	2-B10	2-B11	2-B12	2-B13	2-B14	2-B15
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	27.8	850	6570	781	25.6	160	55.9	4270	53.8
Copper	600	600	NA	14.5	324	189	101	10.4	61.5	60.2	70.8	21.8
Zinc	1500	1500	NA	27.8	217	277	436	27.7	248	301	1000	64.3

SAMPLE ID				2-B16	2-B17	2-B18	2-B19	2-B20	2-B21	2-B22	2-B23	2-B24
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	610	8.62	1670	30.2	461	67.9	282	474	55.6
Copper	600	600	NA	92.2	7.83	142	23.7	24.9	49.1	14.2	59.7	21.8
Zinc	1500	1500	NA	209	21	302	52.9	106	175	9.95	136	64

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				2-B25	2-B26	2-B27	2-B28	2-B29	2-B30	2-B31	2-B32	2-B33
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	130	402	308	402	38.2	121	8.95	443	6.29
Copper	600	600	NA	40.5	69.8	95.5	78.3	16.1	72	8.02	41	11.2
Zinc	1500	1500	NA	20.4	185	277	281	76.5	210	15.3	85.3	18.7

SAMPLE ID				2-B34	2-B35	2-B36	3B-1	3B-2	3B-3	3B-4	3B-5	3B-6
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				3/1990	3/1990	3/1990	9/9/1990	9/9/1990	9/9/1990	9/9/1990	9/9/1990	9/9/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	49.4	6.15	16300	30	870	510	3400	630	NR
Copper	600	600	NA	24.3	6.36	495	32	120	22	960	120	NR
Zinc	1500	1500	NA	78.4	13.4	3950	73	400	320	63	500	79

SAMPLE ID				3B-8	3B-9	3B-10	3B-12	3B-13	3B-14	A2	A4	B1A
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	1.5 - 2.0	0.5 - 1.0	1.5 - 2.0
DATE COLLECTED				9/9/1990	9/9/1990	9/9/1990	9/9/1990	9/9/1990	9/9/1990	9/1991	9/1991	9/1991
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	NR	4300	610	310	160	54000	139	36.1	752
Copper	600	600	NA	49	960	120	62	58	NR	68.2	13.4	6.69
Zinc	1500	1500	NA	NR	1100	120	190	55	9200	199	27	582

Notes:

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IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.



**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				B2F	B4D	C2A	C3D	C1A	D2	D3	E1	E2B
SAMPLE DEPTH (FEET)				0.5 - 1.0	1.5 - 2.0	1.0 - 1.5	1.0 - 1.5	0.5 - 1.0	1.5 - 2.0	1.5 - 2.0	0.5 - 1.0	1.0 - 1.5
DATE COLLECTED				9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	258	416	356	515	148	1110	143	236	786
Copper	600	600	NA	58.8	279	237	172	42.9	214	62.2	55	137
Zinc	1500	1500	NA	237	218	227	400	100	386	168	104	225

SAMPLE ID				E3B	E4	F1	F2B	F3E	G1	G2	G3D	G4
SAMPLE DEPTH (FEET)				0.0 - 0.5	1.5 - 2.0	0.5 - 1.0	1.0 - 1.5	1.5 - 2.0	1.5 - 2.0	0.5 - 1.0	1.5 - 2.0	0.5 - 1.0
DATE COLLECTED				9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	818	122	484	605	564	198	26.2	264	99.2
Copper	600	600	NA	147	41.9	110	225	118	105	19.6	192	52.3
Zinc	1500	1500	NA	126	110	74.3	501	189	258	47.6	256	87

SAMPLE ID				H1	H2	H3P	H4	I1E	I2C	I3M	J1B	J2A
SAMPLE DEPTH (FEET)				1.5 - 2.0	1.5 - 2.0	1.0 - 1.5	1.5 - 2.0	0.5 - 1.0	1.5 - 2.0	0.5 - 1.0	1.0 - 1.5	0.5 - 1.0
DATE COLLECTED				9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	82.8	70.1	1420	296	388	16.4	108	817	1110
Copper	600	600	NA	24.3	26.8	87.8	124	39	18	58.8	94.9	134
Zinc	1500	1500	NA	26.9	38.4	217	164	130	39.2	79.2	294	391

Notes:

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mg/kg - milligrams per kilogram.

**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				J3B	J4	K1B	K2B	K3D	K4A	L1	L2B	L3C
SAMPLE DEPTH (FEET)				1.5 - 2.0	1.5 - 2.0	0.5 - 1.0	0.5 - 1.0	1.0 - 1.5	0.0 - 0.5	1.0 - 1.5	0.5 - 1.0	0.5 - 1.0
DATE COLLECTED				9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	187	480	749	313	270	65800	360	385	517
Copper	600	600	NA	67.5	113	49.8	136	49.7	63.1	56.7	43.5	56.6
Zinc	1500	1500	NA	132	265	93.7	75.8	85.8	194	323	148	172

SAMPLE ID				L4	M1A	M2A	M3	M4	N1	N2	N3	O2A
SAMPLE DEPTH (FEET)				1.5 - 2.0	0.0 - 0.5	0.5 - 1.0	0.0 - 0.5	0.5 - 1.0	0.5 - 1.0	1.5 - 2.0	0.5 - 1.0	1.5 - 2.0
DATE COLLECTED				9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991	9/1991
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	124	959	669	684	48.8	1080	318	81.3	442
Copper	600	600	NA	12.2	78	31.9	581	5.85	110	40	38.9	134
Zinc	1500	1500	NA	30.1	435	65.9	334	15.5	144	34.8	27.3	428

SAMPLE ID				R1C1	R1C2	R1C7	R1C10	R1C12	R2C1	R2C2	R2C5	R2C6
SAMPLE DEPTH (FEET)				0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
DATE COLLECTED				10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	225	250	1640	1440	102	407	748	1020	24.3
Copper	600	600	NA	59	42.1	74.3	123	142	65.9	113	141	7.6
Zinc	1500	1500	NA	2380	83.8	237	338	67.8	323	214	1970	26.8

**Notes:**

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IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				R2C7	R2C9	R2C11	R3C1	R3C2	R3C3	R3C4	R3C5	R3C6
SAMPLE DEPTH (FEET)				0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
DATE COLLECTED				10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	430	2190	825	2840	63.4	137	307	1000	1120
Copper	600	600	NA	70	128	450	83.5	44.2	18.4	84.5	102	558
Zinc	1500	1500	NA	218	438	246	227	68.5	64.7	196	746	505

SAMPLE ID				R3C7	R3C8	R3C9	R4C1	R4C2	R4C4	R4C5	R4C7	R4C8
SAMPLE DEPTH (FEET)				0.5 - 1.0	0.2 - 0.7	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
DATE COLLECTED				10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	319	856	877	483	218	54.4	191	1940	255
Copper	600	600	NA	41.2	109	89.2	105	38.2	39.9	54.9	84.7	57
Zinc	1500	1500	NA	164	381	202	490	43.5	283	235	290	188

SAMPLE ID				R4C9	R5C1	R5C2	R5C4	R5C5	R5C6	R5C7	R5C8	R5C9
SAMPLE DEPTH (FEET)				0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.2 - 0.7	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
DATE COLLECTED				10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	331	578	645	548	315	1290	391	338	275
Copper	600	600	NA	136	144	82.6	322	129	92.5	46.4	45.5	114
Zinc	1500	1500	NA	270	521	147	360	128	178	137	134	656

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				R6C1	R6C8	R6C9	R6C10	R6C16	R7C9	R7C10	R7C13	R8C8
SAMPLE DEPTH (FEET)				0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
DATE COLLECTED				10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1820	561	426	584	555	187	767	<11	492
Copper	600	600	NA	184	63.7	128	143	130	27.5	142	6.5	118
Zinc	1500	1500	NA	694	148	325	233	575	25.2	279	19.7	322

SAMPLE ID				R8C9	R8C10	R8C14	PR-1	PR-1	PR-1	PR-2	PR-2	PR-2
SAMPLE DEPTH (FEET)				0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	1.5 - 2.0	2.5 - 3.0	1.0 - 1.5	1.5 - 2.0	2.5 - 3.0
DATE COLLECTED				10/1995	10/1995	10/1995	11/21/1995	11/21/1995	11/21/1995	11/21/1995	11/21/1995	11/21/1995
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	345	769	3760	18000	1100	230	240	290	5000
Copper	600	600	NA	178	73.2	169	4400	3500	99	78	140	340
Zinc	1500	1500	NA	239	304	265	3000	2200	540	350	120	12000

SAMPLE ID				PR-3	PR-3	PR-3	PR-4	PR-5	PR-6	PR-7	PR-8	PR-9
SAMPLE DEPTH (FEET)				0.5 - 1.0	0.7 - 1.2	1.5 - 2.0	1.0 - 1.5	0.0 - 0.5	0.5 - 1.0	0.5 - 1.0	1.0 - 1.5	0.5 - 1.0
DATE COLLECTED				11/21/1995	11/21/1995	11/21/1995	11/21/1995	11/21/1995	11/21/1995	11/21/1995	11/21/1995	11/21/1995
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	270	760	1500	43.3	1200	4930	158	2030	1100
Copper	600	600	NA	85	300	620	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	230	610	980	NR	NR	NR	NR	NR	NR

Notes:

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NR - Not analyzed or data not available.

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IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				PR-10	PR-11	PR-12	PR-13	CG-TX-B2	CG-TX-B2	CG-TX-B2	CG-TX-B2	CG-TX-B2
SAMPLE DEPTH (FEET)				1.0 - 1.5	0.0 - 0.5	0.5 - 1.0	0.5 - 1.0	0.0 - 0.5	0.5 - 1.0	1.0 - 1.5	1.5 - 2.0	2.0 - 2.5
DATE COLLECTED				11/21/1995	11/21/1995	11/21/1995	11/21/1995	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	295	770	1240	3140	98700	1640	744	66	290
Copper	600	600	NA	NR	NR	NR	NR	1520	323	173	25.8	301
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR

SAMPLE ID				CG-TX-B2	CG-TX-B2	CG-TX-B2	CG-TX-B3	CG-TX-B3	CG-TX-B3	CG-TX-B3	CG-TX-B3	CG-TX-B3
SAMPLE DEPTH (FEET)				2.5 - 3.0	3.0 - 3.5	3.5 - 4.0	0.0 - 0.5	0.5 - 1.0	1.0 - 1.5	1.5 - 2.0	2.0 - 2.5	2.5 - 3.0
DATE COLLECTED				8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1010	1020	964	719	2710	514	717	1130	978
Copper	600	600	NA	201	252	274	221	324	170	483	398	307
Zinc	1500	1500	NA	NR	NR	NR	857	1260	342	583	858	750

SAMPLE ID				CG-TX-B3	CG-TX-B3	CG-TX-B4	CG-TX-B4	CG-TX-B4	CG-TX-B4	CG-TX-B4	CG-TX-B4	CG-TX-B4
SAMPLE DEPTH (FEET)				3.0 - 3.5	3.5 - 4.0	0.0 - 0.5	0.5 - 1.0	1.0 - 1.5	1.5 - 2.0	2.0 - 2.5	2.5 - 3.0	3.0 - 3.5
DATE COLLECTED				8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	28100	2660	675	752	734	1390	52	26.7	12 U
Copper	600	600	NA	9380	1250	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	28200	2110	NR	NR	NR	NR	NR	NR	NR

**Notes:**

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				CG-TX-B4	CG-TX-B5	CG-TX-B5	CG-TX-B5	CG-TX-B5	CG-TX-B5	CG-TX-B5	CG-TX-B5	CG-TX-B5
SAMPLE DEPTH (FEET)				3.5 - 4.0	0.0 - 0.5	0.5 - 1.0	1.0 - 1.5	1.5 - 2.0	2.0 - 2.5	2.5 - 3.0	3.0 - 3.5	3.5 - 4.0
DATE COLLECTED				8/2/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	12.5	960 B	594 B	63 B	35.2 B	12.7 B	11 UB	11 UB	12 UB
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR

SAMPLE ID				CG-TX-B5	CG-TX-B5	CG-TX-B6	CG-TX-B6	CG-TX-B6	CG-TX-B6	CG-TX-B6	CG-TX-B6	CG-TX-B6
SAMPLE DEPTH (FEET)				4.0 - 4.5	4.5 - 5.0	0.0 - 0.5	0.5 - 1.0	1.0 - 1.5	1.5 - 2.0	2.0 - 2.5	2.5 - 3.0	3.0 - 3.5
DATE COLLECTED				8/1/2000	8/1/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	11 UB	11 UB	451	238	530	506	69.4	65.2	104
Copper	600	600	NA	NR	NR	89	75	342	119	35	25.9	34.8
Zinc	1500	1500	NA	NR	NR	730	228	685	626	272	71.7	205

SAMPLE ID				CG-TX-B6	TB-1	TB-2	TB-3	TB-4	TB-5	TB-6	TB-7	TB-8
SAMPLE DEPTH (FEET)				3.5 - 4.0	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				8/2/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	63	1020	939	391	325	371	242	258	1150
Copper	600	600	NA	41.2	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	321	NR	NR	NR	NR	NR	NR	NR	NR

**Notes:**

NA - Not available.

NR - Not analyzed or data not available.

U - Compound not detected at corresponding detection limit.

B - Analyte detected in field blank sample.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				TB-9	TB-10	II-1	H-2	H-5	H-6	H-14	SW-1	II-8JI
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				8/1/2000	8/1/2000	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	525	9040	3.0	360	270	280	118	39.7	463
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR

SAMPLE ID				SW-2	II-3L	3K	3J	7I	7G	7C	7L	B-5
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	400	405	388	502	373	411	247	66	350
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR

SAMPLE ID				B-6A	H-3D	B-7	H-7H	H-4PI	B-8A	B-9	H-4N	H-4Q1
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	980	22	147	312	115	279	546	444	115
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				B-10	H-7K	H-7M	B-11	B-12A	B-13	9-B	9-P	B-15
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	528	59	203	49.6	808	35.7	454	53.6	686
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR

SAMPLE ID				B-14	SW-3	B-16	B-17	B-18A	H-9Q	SW-4	8E	H-2A
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	231	168	55.7	110	32	117	542	36.8	92
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR

SAMPLE ID				BI	H-17A	H-17D	H-17	H-17	H-17C	H-17B	H-11	H-10B
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	1.0 - 1.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	443	920	531	2610	628	50.3	1700	280	1010
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	811	NR

**Notes:**

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.



**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				H-10C	H-10	H-10	H-10	H-10A	H-10D	H-10E	H-20	H-16
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.5 - 1.0	1.5 - 2.0	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	483	512	1150	2450	3380	1600	1070	94.9	206
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR

SAMPLE ID				H-22	H-21	H-14D	H-14C	H-14C	H-14	H-14A	H-14B	H-19
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	1.0 - 1.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	360	389	427	522	25.2	476	324	563	469
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR

SAMPLE ID				H-12	H-15	H-15	H-18	H-18	H-18A	H-18B	H-18C	H-18D
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	1.0 - 1.5	0.0 - 0.5	1.0 - 1.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	378	663	1280	827	547	504	411	244	362
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				1	2	4	6	7	8	9	14	16A
SAMPLE DEPTH (FEET)				0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.0 - 0.5
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	790	290	78	250	460	790	100	540	135
Copper	600	600	NA	510	NR	54	NR	NR	230	30	130	NR
Zinc	1500	1500	NA	620	NR	240	NR	NR	640	88	500	NR

SAMPLE ID				B-A1	B-A2	B-2	B-3	B-4	S-1	S-2	S-3	S-4
SAMPLE DEPTH (FEET)				2.5 - 3.0	2.5 - 3.0	2.0 - 2.5	2.0 - 2.5	2.0 - 2.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1340	327	NR	696	455	2080	1650	852	468
Copper	600	600	NA	NR	NR	198	91.9	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	1320	296	632	NR	NR	NR	NR

SAMPLE ID				PX-2	R1C1-D*	R1C1-N0	R1C1-W0	R1C1-S0	R1C1-E0	R3C0	R4C0	R0C5
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				NA	3/18/04	3/18/04	3/18/04	3/18/04	3/18/04	3/18/04	3/18/04	3/18/04
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1120	NR	NR	NR	NR	NR	432	727	231
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	2030	191	190	398	197	208	NR	NR	NR

**Notes:**

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

\*Sample has been renamed to avoid repetition (Originally named R1C1).

**TABLE 1**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				R0C8	R1C16	R3C-1	R4C-1	R1C1-D0	R3C-2	R4C-2
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	2.0 - 2.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				3/18/04	3/18/04	3/18/04	3/18/04	4/14/04	4/14/04	4/14/04
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	215	285	492	780	NR	710	711
Copper	600	600	NA	NR	NR	NR	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR	52.4	NR	NR

**Notes:**

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				A1	A2	A4	B1	B1A	B1-N10	B2	B2A	B2A-N4
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	47.1	81.1	12.8	41000	321	143	1904.7	3110	67.8
Copper	600	600	NA	26.6	39.7	18.9	464	110	40.9	483.9	437	31.8
Zinc	1500	1500	NA	168	167.9	38.9	1430	538	228	929.1	918	268

SAMPLE ID				B2A-N8	B2B	B2B-N4	B2B-N8	B2C	B2C-N1	B2C-N2	B2C-N3	B2C-N4
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	968	1940	62	1660	6220	1480	754	5000	1190
Copper	600	600	NA	331	242	34.9	276	1410	262	95.4	858	151
Zinc	1500	1500	NA	1620	1240	155	998	3760	689	375	3110	1060

SAMPLE ID				B2C-N5	B2C-N6	B2C-N7	B2C-N8	B2C-N9	B2D	B2D-N8	B2E	B2E-N8
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	801	2400	115	325	584	354	1040	3530	879
Copper	600	600	NA	154	564	35	432	95	101	238	1040	265
Zinc	1500	1500	NA	594	1280	327	200	331	403	642	3160	640

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				B2F	B2F-W10	B2G-N1	B2G-N2	B2G-N5	B2G-N9	B2H-N5	B2-N7	B2-N9
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	399	716	63	28.1	2720	270	39.2	126	4500
Copper	600	600	NA	76.2	142	30.5	23.8	197	90	38.5	34.6	519
Zinc	1500	1500	NA	279	357	171	45.3	459	230	97.1	196	990

SAMPLE ID				B4	B4A	B4B	B4C	B4C-N1	B4C-N2	B4C-N9	B4D	B4-N7
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	2886.6	13200	8750	1040	2430	165	316	320	52.3
Copper	600	600	NA	296.9	186	248	301	422	63.5	123	137	22.1
Zinc	1500	1500	NA	624.1	511	847	421	361	350	283	194	312

SAMPLE ID				C1	C1A	C2	C2A	C3	C3A	C3B	C3C	C3D
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1180	65.9	1210	299	7380	974	1090	2446.4	664
Copper	600	600	NA	188	224	441	161	1200	220	84	813.7	166
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	NR	246	353.3	174

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				D1	D1A	D1A-W1	D1A-W2	D1B	D1B-W5	D1B-W9	D1B-W11	D1B-W13
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	744	2210	2400	1310	1070	1810	675	1270	1120
Copper	600	600	NA	216	355	764	860	310	436	206	299	648
Zinc	1500	1500	NA	NR	NR	698	683	470	610	332	358	546

SAMPLE ID				D1C	D1D	D2	D2D	D2J	D3	D3A-W3	D3A-W11	D3A-W13
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1491.5	651	753	7750	348	247	20.6	530	431
Copper	600	600	NA	354.3	236	130	1560	90.5	68.9	15	83.9	90
Zinc	1500	1500	NA	561.8	378	NR	2160	168	NR	30.6	175	146

SAMPLE ID				D3B-W3	D3B-W7	D3B-W11	D3B-W15	D3K	D3L	D3M	D4	D4D
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	461	396	214	390	5810	694	6570	1640	2360
Copper	600	600	NA	163	66.8	68.1	68.4	1710	206	3570	798	1030
Zinc	1500	1500	NA	131	172	135	169	5330	547	500	1130	352

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				DIB-W3	DIB-W4	DIC-W1	DIC-W2	E1	E2	E2A	E2B	E3
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	673	2460	1030	706	279	692	808	640	1110
Copper	600	600	NA	161	533	533	183	65.9	286	197	130	261
Zinc	1500	1500	NA	333	406	464	406	119	246	NR	228	290

SAMPLE ID				E3A	E3B	E4	F1	F2	F2A	F2B	F3	F3A
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	3960	716	134	524	938	5490	442	2610	4870
Copper	600	600	NA	736	120	41.8	83.6	229	318	115	315	742
Zinc	1500	1500	NA	NR	124	157	78.4	384	515	240	285	NR

SAMPLE ID				F3B	F3C	F3D	F3E	F4	F4A	F4B	F5A	F5B
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1390	964.2	1000	439	7350	14000	539	358	7370
Copper	600	600	NA	411	925.2	107	83.4	2530	6070	153	54.4	245
Zinc	1500	1500	NA	647	425.9	482	138	13500	12600	78.4	92.9	2490

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				F6A	F6B	G1	G2	G3	G3A	G3B	G3C	G3C-E1
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	17000	151	208	31.9	637	12800	9739.1	297	1710
Copper	600	600	NA	298	50.8	81.6	22.8	251	974	1123	42.9	352
Zinc	1500	1500	NA	2300	32	253	48.5	331	1480	2311.8	446	980

SAMPLE ID				G3C-E2	GC3-E3	G3C-W1	G3D	G4	H1	H2	H3	H3A
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	2610	459	615	247	94.7	78.4	46.2	1120	8610
Copper	600	600	NA	533	102	97.5	75.3	37.6	NR	NR	NR	32.80
Zinc	1500	1500	NA	1230	305	322	314	85.1	28.9	62.8	350	1980

SAMPLE ID				H3B	H3C	H3C-W1	H3C-W2	H3C-W3	H3C-W7	H3C-W11	H3D	H3E
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1876	1470	496	288	188	97.3	67	1670	4660
Copper	600	600	NA	897.8	1080	336	78	51.7	52.5	27.6	565	861
Zinc	1500	1500	NA	585.8	866	561	413	193	123	45	2870	1480

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.



**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				H3F	H3G	H3G-E1	H3G-E2	H3G-W1	H3G-W2	H3G-W3	H3G-W4	H3G-W5
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	6150	1680	5300	3750	6840	6700	17500	58000	1150
Copper	600	600	NA	1498	247	2180	2560	1440	412	9050	7640	3430
Zinc	1500	1500	NA	2730	418	6670	2680	2200	669	8290	14000	6880

SAMPLE ID				H3G-W6	H3G-W11	H3H	H3I	H3J	H3K	H3K-W1	H3K-W2	H3K-W3
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	6830	36.7	1020	8470	7280	3120	15400	15300	3150
Copper	600	600	NA	5400	20.5	102	227	246	618	1600	2670	187
Zinc	1500	1500	NA	4920	51.6	248	420	359	122	470	7350	298

SAMPLE ID				H3K-W4	H3K-W7	H3K-W11	H3L	H3M	H3N	H3O	H3O-W1	H3O-W2
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	84.4	22.7	233	87100	91700	20800	3720	238	412
Copper	600	600	NA	80.7	17.3	103	30100	2890	1690	579	112	119
Zinc	1500	1500	NA	111	133	127	12200	2970	1720	1130	660	398

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				H3O-W3	H3O-W4	H3P	H4	H5A	H5B	H5C	H5D	H5E
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1140	256	534	302	5210	9980	1960	527	1220
Copper	600	600	NA	176	119	100	NR	2330	11500	32500	127	249
Zinc	1500	1500	NA	371	220	241	233	2180	2820	8540	348	4130

SAMPLE ID				I1	I1A	I1B	I1C	I1D	I1E	I2	I2A	I2B
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1640	1840	2378.7	7510	131000	396	2200	906	618.5
Copper	600	600	NA	233	316	163.9	58.5	168	43.3	383	858	259.7
Zinc	1500	1500	NA	323	500	213.2	158	212	161	424	491	252.3

SAMPLE ID				I2C	I3	I3A	I3B	I3C	I3D	I3E	I3F	I3G
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	6.95	12100	24300	32586.5	12000	17800	12000	17000	676
Copper	600	600	NA	155	4650	9980	11548.5	3740	744	5270	2510	204
Zinc	1500	1500	NA	39.2	16100	4560	6551	1570	1500	488	3980	1360

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				I3H	I3I	I3J	I3K	I3L	I3M	I4	I4A	I4AA
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1931	28600	940	11900	516	102	1020	1420	389
Copper	600	600	NA	207	998	200	2050	138	45	1200	756	95.5
Zinc	1500	1500	NA	517	966	349	3980	380	95.1	944	342	343

SAMPLE ID				I4AB	I4B	I4C	I4D	I4E	I4F	I4G	I4H	I4I
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	680	1623.8	1260	2340	1196	7460	15100	2150	4710
Copper	600	600	NA	217	210.8	754	641	666	593	259	761	2120
Zinc	1500	1500	NA	293	177.6	330	974	588	1060	1030	1150	11600

SAMPLE ID				I4J	I4K	I4L	I4M	I4N	I4P	I4Q	I4R	I4S
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	3850	4999	10600	844	4370	3080	1280	39300	9300
Copper	600	600	NA	1520	658	2170	253	1040	464	361	163	1150
Zinc	1500	1500	NA	3410	1350	4120	380	906	1650	938	853	8030

**Notes:**

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				I4T	I4U	I4V	I4W	I4X	I4Y	I4Z	I5A	I6A
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1790	4620	14490	2870	1470	833	1150	433	16800
Copper	600	600	NA	499	5200	1630	257	350	187	135	55.1	2090
Zinc	1500	1500	NA	1310	2880	1990	765	412	1040	1130	47.9	4400

SAMPLE ID				I6B	I6B	I6B	I7A	I7B	I7B	I7C	I7D	I7E
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	10200	10200	4850	14900	29400	29400	4760	32600	2340
Copper	600	600	NA	1510	1510	103	3760	8400	8600	2010	4130	57.1
Zinc	1500	1500	NA	1750	1750	280	16400	12100	12000	4440	6190	643

SAMPLE ID				I7F	I7G	I7H	I8A	I8B	I9A	I9B	I9C	I9D
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	6500	1180	87.3	664	2170	9580	1120	1060	96000
Copper	600	600	NA	4510	445	37.2	266	1380	1900	166	322	6800
Zinc	1500	1500	NA	4690	1010	189	1260	1300	1910	507	356	3980

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				I9E	I9F	I9G	I9H	I10A	I10B	I11A	I12A	I12B
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	5170	14800	8590	357	300	6390	646	378	100
Copper	600	600	NA	1060	4170	2130	83.3	73.6	1580	77	93	27.6
Zinc	1500	1500	NA	1100	2840	2590	258	436	4460	220	411	54.6

SAMPLE ID				I13A	I14A	I14B	I15A	I15B	I15C	I15D	I15E	I16A
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	542	2630	38	1050	2400	367	358	459	210
Copper	600	600	NA	93	314	65	178	702	134	104	109	91.6
Zinc	1500	1500	NA	261	208	113	318	1660	827	542	266	387

SAMPLE ID				I16C	I16D	I16E	I16F	I16G	I17A	I17B	I18A	I18B
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	2200	1760	2040	11600	19.7	477	625	1090	30900
Copper	600	600	NA	191	549	475	412	26.1	41.1	127	57.8	6430
Zinc	1500	1500	NA	388	1070	613	413	31.4	386	255	1250	7700

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				I18C	I19A	I19B	I19C	I20A	I20B	I20C	I21A	I21C
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	13960	1140	460	89.5	32400	3200	1250	26.1	1620
Copper	600	600	NA	1440	214	104	54.2	6520	686	2310	28	2850
Zinc	1500	1500	NA	6710	564	328	831	8620	1580	770	122	1320

SAMPLE ID				I22A	I22B	I22C	I23A	I24A	I25A	I25B	I27A	I28A
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	598	347	1360	43.2	684	976	113	30400	158
Copper	600	600	NA	179	626	148	30.5	146	331	33.8	245	80.2
Zinc	1500	1500	NA	497	918	403	86.4	174	705	86.6	297	147

SAMPLE ID				I29A	I29A	I29B	I29C	I29N	I30A	I30A	I30B	I31A
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	2960	2210	1540	2280	33.3	437	104	114	2200
Copper	600	600	NA	392	234	243	254	32.7	140	38.7	41.7	340
Zinc	1500	1500	NA	1150	862	604	518	59.5	549	192	99.1	1380

**Notes:**

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				I31B	I31C	I32A	I33A	I34A	I35A	I36A	I36B	I36C
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1790	11.2	301	331	105	35.4	909	745	29.2
Copper	600	600	NA	1320	6.5	68.6	69.6	31.6	19.2	279	131	22.7
Zinc	1500	1500	NA	673	24.5	48.9	207	49.9	76.5	571	332	67.1

SAMPLE ID				I37B	J1	J1A	J1B	J1B-W2	J1C-E1	J2	J2A	J3
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	137	1640	1140	942.1	821	2540	1530	811	354
Copper	600	600	NA	62.7	381	183	74.5	105	440	173	90.2	80.3
Zinc	1500	1500	NA	205	867	528	231.4	275	2880	1020	330	858

SAMPLE ID				J3A	J3B	J3B-W2	J4	K1	K1A	K1B	K1B-W2	K2
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1440	121.5	63.2	494	1630	1690	98.3	824	1020
Copper	600	600	NA	448	66.9	41.3	61.3	90.2	63.1	13.9	42	72.7
Zinc	1500	1500	NA	1240	116.5	71.9	196	255	160	40.4	70.7	212

**Notes:**

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				K2A	K2B	K3	K3A	K3B	K3C	K3C-E1	K3C-W2	K3D
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1316.4	158	1070	1350	1863.6	2190	545	2530	288
Copper	600	600	NA	64.3	101	70.6	68.2	1192.9	648	35	165	49.6
Zinc	1500	1500	NA	224.1	71.6	181	194	364.8	299	120	320	80.2

SAMPLE ID				K3D-W1	K3E-W1	K3E-W3	K3G-W3	K4	K4A	K5A	K5B	L1
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	3700	288	265	372	1380	629	1270	1060	232
Copper	600	600	NA	59.9	26.2	43	48.4	99.8	39.5	90.7	76.5	NR
Zinc	1500	1500	NA	132	96.9	56.2	115	222	117	231	229	NR

SAMPLE ID				L2	L2A	L2B	L3	L3A	L3B	L3C	L3C-E1	L4
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	7110	536	639.1	2630	677	5851.4	370	131	241
Copper	600	600	NA	NR	568	80.9	NR	86.9	1031.6	53.4	22.3	NR
Zinc	1500	1500	NA	NR	126	167.7	NR	351	381.2	104	43.7	NR

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram



**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				L5A	M1	M1A	M2	M2A	M3	M4	N1	N1-E4
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	79.3	1580	764.9	5380	804	727	6.48	460	869
Copper	600	600	NA	12.5	62.1	75.9	127	73.1	81.9	6.46	103	134
Zinc	1500	1500	NA	31.1	158	323.5	201	130.2	206	14.4	119	99.2

SAMPLE ID				N2	N3	N3-E4	N3A-E2	N3A-E4	N4	N4A	N4B	N4-E5
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	205	130	1233	331	167	1360	1701.4	1720	1157
Copper	600	600	NA	38	52.7	154	106	34.8	136	149.4	191	654
Zinc	1500	1500	NA	37	47.6	548	175	301	102	224.3	477	212

SAMPLE ID				N4-E6	O1	O1A	O1B	O1C	O1C-W1	O1C-W2	O1C-W6	O1C-W8
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	31.9	5050	1007.5	364	1040	964	876	3600	769
Copper	600	600	NA	21.6	167	121.7	179	146	886	141	84.1	81.4
Zinc	1500	1500	NA	99.5	1220	895.2	446	635	589	490	1290	511

**Notes:**

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				O1C-W10	O1D	O1D-W4	O1E	O1F	O1G	O1H	O1I	O1I-W3
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	720	1530	46.4	2240	1620	1020	2640	2370	587
Copper	600	600	NA	61.8	238	16.4	431	172	230	157	284	81
Zinc	1500	1500	NA	298	763	49.6	1860	2120	796	1340	1090	352

SAMPLE ID				O1I-W1	O1I-W2	O1I-W4	O1I-W4	O1I-W5	O1J-W1	O1J-W2	O1J-W3	O1J-W4
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	2460	533	348	416	192	1060	628	273	418
Copper	600	600	NA	74.6	150	72.6	45.2	39.1	131	56.9	797	75.9
Zinc	1500	1500	NA	240	348	185	224	85.9	1000	388	209	38.5

SAMPLE ID				O1J-W5	O1K	O1K-W1	O1K-W3	O1K-W4	O1K-W5	O1L	O1L-W1	O1L-W4
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	24.7	1610	164	6.04	457	66.9	1340	507	315
Copper	600	600	NA	18.6	162	35.3	7.74	79.8	15.3	150	145	90
Zinc	1500	1500	NA	145	941	167	15.8	446	341	11900	205	356

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				O1L-W5	O1M	O2	O2A	O2E	O2E	O2F	O2G	O2H
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	79.9	733	1450	632.3	2090	1930	670	436	2430
Copper	600	600	NA	44.7	178	58.8	93.3	1670	1410	160	198	814
Zinc	1500	1500	NA	73.1	466	188	331.7	690	622	1120	467	1430

SAMPLE ID				O2H	O2I	O2J	O3	O3A	O3A-W8	O3A-W10	O3B-W4	O3B-W6
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	706	701	307	1180	622.8	1440	1030	639	1625
Copper	600	600	NA	156	126	64.9	426	130.9	215	1600	131	180
Zinc	1500	1500	NA	781	435	284	2310	378.7	1200	721	267	1275

SAMPLE ID				O3B-W8	O3B-W10	O3B-W14	O3C-W4	O3C-W6	O3C-W8	O3C-W10	O3D-W6	O3D-W10
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	1790	2270	17.5	517	541	875	595	304	1890
Copper	600	600	NA	298	121	54.1	281	76.2	176	308	141	222
Zinc	1500	1500	NA	2150	893	128	415	801	662	694	315	1090

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 2**  
**LEAD, COPPER, & ZINC SOIL SCREENING RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				O3D-W12	O3D-W14
SAMPLE DEPTH (FEET)				NA	NA
DATE COLLECTED				NA	NA
MATRIX				SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg
Lead	600	400	NA	5760	282
Copper	600	600	NA	123	149
Zinc	1500	1500	NA	1540	199

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 3**  
**POLYCHLORINATED BIPHENYLS LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				R1C7	R1C10	R1C12	R2C2	R3C4	R3C9	R4C7
SAMPLE DEPTH (FEET)				0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
DATE COLLECTED				10/1995	10/1995	10/1995	10/1995	10/1995	10/1995	10/1995
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC*	RDCSCC*	IGWSCC*	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aroclor 1260	2	0.49	50	0.207	16.5	0.138	0.406	ND	0.352	2.52

SAMPLE ID				R5C2	R5C4	R6C8*	R6C10	R6C16	CG-TX-B4	CG-TX-B4
SAMPLE DEPTH (FEET)				0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.0 - 0.5	0.5 - 1.0
DATE COLLECTED				10/1995	10/1995	10/1995	10/1995	10/1995	8/2/00	8/2/00
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC*	RDCSCC*	IGWSCC*	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aroclor 1260	2	0.49	50	1.09	0.076	968 (676)	0.735	0.881	ND	0.0812

SAMPLE ID				CG-TX-B4	CG-TX-B4	CG-TX-B4	CG-TX-B4	CG-TX-B4	CG-TX-B4
SAMPLE DEPTH (FEET)				1.0 - 1.5	1.5 - 2.0	2.0 - 2.5	2.5 - 3.0	3.0 - 3.5	3.5 - 4.0
DATE COLLECTED				8/2/00	8/2/00	8/2/00	8/2/00	8/2/00	8/2/00
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC*	RDCSCC*	IGWSCC*	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aroclor 1260	2	0.49	50	0.212	5.89	0.655	0.049	0.0318	0.026

Notes:

ND - Not detected.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

\* - Criteria listed is for total PCBs.

\* - Sample reanalyzed. Number in parenthesis represents results of second analysis.

**TABLE 3**  
**POLYCHLORINATED BIPHENYLS LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				R5C2-D0	R5C2-N0	R5C2-E0	R1C10-D0	R1C10-N0	R1C10-E0	R1C10-S0
SAMPLE DEPTH (FEET)				2.0 - 2.5	0.0 - 0.5	0.0 - 0.5	2.0 - 2.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				4/1/04	4/1/04	4/1/04	4/1/04	4/1/04	4/1/04	4/1/04
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC*	RDCSCC*	IGWSCC*	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aroclor 1260	2	0.49	50	0.461	0.182	4.260	10.8	1.840	1.970	0.346

SAMPLE ID				R1C10-W0	R6C16-W0	R6C10-D*	R6C8-D0	R6C8-N0	R6C8-E0	R6C8-S0
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	2.0 - 2.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				4/1/04	4/1/04	4/1/04	4/1/04	4/1/04	4/1/04	4/1/04
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC*	RDCSCC*	IGWSCC*	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aroclor 1260	2	0.49	50	3.380	0.160	0.811	0.812	0.757	0.245	0.563

SAMPLE ID				R6C8-W0	R7C7	R7C7-N	R7C7-E	R6C8-N	R6C8-E	R6C8-S
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				4/1/04	4/1/04	4/14/04	4/14/04	4/14/04	4/14/04	4/14/04
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC*	RDCSCC*	IGWSCC*	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aroclor 1260	2	0.49	50	0.608	1.300	0.246	1.100	0.416	0.196	0.238

**Notes:**

ND - Not detected.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

\* - Criteria listed is for total PCBs.

\* - Sample reanalyzed. Number in parenthesis represents results of second analysis.

\*Sample has been renamed to avoid confusion (Originally named R6C10-E0).

**TABLE 3**  
**POLYCHLORINATED BIPIHENYLS LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				R6C8-W	R6C10-E	R1C10-W1	R1C10-N1	R5C2-E1	R1C10-D1	
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	3.0 - 3.5	0.0 - 0.5
DATE COLLECTED				4/14/04	4/14/04	4/14/04	4/14/04	4/14/04	4/14/04	4/14/04
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC*	RDCSCC*	IGWSCC*	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aroclor 1260	2	0.49	50	2.39	0.555	ND	0.937	1.17	2.74	

Notes:

ND - Not detected.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

\* - Criteria listed is for total PCBs.

# - Sample reanalyzed. Number in parenthesis represents results of second analysis.

**TABLE 4**  
**TOTAL PETROLEUM HYDROCARBON LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				1-A1	1-A2	1-A3	1-A4	1-B1	1-B2	1-B3
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0
DATE COLLECTED				5/17/1987	5/17/1987	5/17/1987	5/17/1987	5/17/1987	5/17/1987	5/17/1987
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	3300	35	230	230	190	120	170

SAMPLE ID				1-B4	1-B5	1-B6	1-B7	1-B8	1-B9	1-B10
SAMPLE DEPTH (FEET)				1.5 - 2.0	0.5 - 1.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	0.5 - 1.0	1.5 - 2.0
DATE COLLECTED				5/17/1987	5/17/1987	5/17/1987	5/17/1987	5/17/1987	5/17/1987	5/17/1987
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	1000	1000	49 U	120	50 U	14000	60

SAMPLE ID				1-B11	1-B12	1-B13	1-B14	1-B15	1-B16	1-B17
SAMPLE DEPTH (FEET)				1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	0.0 - 0.5
DATE COLLECTED				5/17/1987	5/17/1987	5/17/1987	5/17/1987	5/17/1987	5/17/1987	5/17/1987
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	170	45 U	630	1300	33	940	60

SAMPLE ID				1-B18	1-B19	1-B20	1-B21	1-B22	1-B23	1-E1
SAMPLE DEPTH (FEET)				1.5 - 2.0	1.5 - 2.0	0.0 - 0.5	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0
DATE COLLECTED				5/17/1987	5/17/1987	5/17/1987	5/17/1987	5/17/1987	5/17/1987	12/29/1987
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	46 U	40 U	45 U	810	70	110	7200

**Notes:**

U - Compound not detected at corresponding detection limit.  
NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.  
RDCSCC - Residential Direct Contact Soil Cleanup Criteria.  
IGWSCC - Impact to Groundwater Soil Cleanup Criteria.  
mg/kg - milligrams per kilogram.



**TABLE 4**  
**TOTAL PETROLEUM HYDROCARBON LABORATORY ANALYTICAL RESULTS**  
**TEXACO - PIRELLI**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				1-E2	1-E3	2-B1	2-B2	2-B3	2-B4	2-B5
SAMPLE DEPTH (FEET)				1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0
DATE COLLECTED				12/29/1987	12/29/1987	3/1990	3/1990	3/1990	3/1990	3/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	830	49 U	395	623	668	27	156

SAMPLE ID				2-B6	2-B7	2-B8	2-B9	2-B10	2-B11	2-B12
SAMPLE DEPTH (FEET)				1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0
DATE COLLECTED				3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	1250	75.7	150	232	26.7	1040	81.6

SAMPLE ID				2-B13	2-B14	2-B15	2-B16	2-B17	2-B18	2-B19
SAMPLE DEPTH (FEET)				1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0
DATE COLLECTED				3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	29.3	39.3	28.8	72.1	11.5 U	233	313

SAMPLE ID				2-B20	2-B21	2-B22	2-B23	2-B24	2-B25	2-B26
SAMPLE DEPTH (FEET)				1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0
DATE COLLECTED				3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	1060	13.1 U	12.5 U	176	928	27.7	661

**Notes:**

U - Compound not detected at corresponding detection limit.  
NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.  
RDCSCC - Residential Direct Contact Soil Cleanup Criteria.  
IGWSCC - Impact to Groundwater Soil Cleanup Criteria.  
mg/kg - milligrams per kilogram.

**TABLE 4**  
**TOTAL PETROLEUM HYDROCARBON LABORATORY ANALYTICAL RESULTS**  
**TEXACO - PIRELLI**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				2-B27	2-B28	2-B29	2-B30	2-B31	2-B32	2-B33
SAMPLE DEPTH (FEET)				1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0
DATE COLLECTED				3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	545	234	1160	154	11.5 U	2740	12.2 U

SAMPLE ID				2-B34	2-B35	2-B36	3B-1	3B-7	CG-TX-B2	CG-TX-B2
SAMPLE DEPTH (FEET)				1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	0.0 - 0.5	0.5 - 1.0
DATE COLLECTED				3/1990	3/1990	3/1990	9/9/1990	9/9/1990	8/2/2000	8/2/2000
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	28.8	10.6 U	218	34	12000	233	1070

SAMPLE ID				CG-TX-B2	CG-TX-B2	CG-TX-B2	CG-TX-B2	CG-TX-B2	CG-TX-B2	CG-TX-B5
SAMPLE DEPTH (FEET)				1.0 - 1.5	1.5 - 2.0	2.0 - 2.5	2.5 - 3.0	3.0 - 3.5	3.5 - 4.0	0.0 - 0.5
DATE COLLECTED				8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/1/2000
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	1890	57.2	70.2	61.7	111	200	2930

SAMPLE ID				CG-TX-B5	CG-TX-B5	CG-TX-B5	CG-TX-B5	CG-TX-B5	CG-TX-B5	CG-TX-B5
SAMPLE DEPTH (FEET)				0.5 - 1.0	1.0 - 1.5	1.5 - 2.0	2.0 - 2.5	2.5 - 3.0	3.0 - 3.5	3.5 - 4.0
DATE COLLECTED				8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000	8/1/2000
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	327	397	2240	181	2140	36800	3800

**Notes:**

U - Compound not detected at corresponding detection limit.  
NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.  
RDCSCC - Residential Direct Contact Soil Cleanup Criteria.  
IGWSCC - Impact to Groundwater Soil Cleanup Criteria.  
mg/kg - milligrams per kilogram.

**TABLE 4**  
**TOTAL PETROLEUM HYDROCARBON LABORATORY ANALYTICAL RESULTS**  
**TEXACO - PIRELLI**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				CG-TX-B5	CG-TX-B5	H-1	H-2	H-5	H-6
SAMPLE DEPTH (FEET)				4.0 - 4.5	4.5 - 5.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	0.5 - 1.0
DATE COLLECTED				8/1/2000	8/1/2000	1995	1995	1995	1995
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	28900	7130	310	ND	51.8	1290

Notes:

ND - Not detected

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 5**  
**POLYCYCLIC AROMATIC HYDROCARBON LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				2-B1 NA 3/1990 SOIL	2-B2 NA 3/1990 SOIL	2-B3 NA 3/1990 SOIL	2-B4 NA 3/1990 SOIL	2-B5 NA 3/1990 SOIL	2-B6 NA 3/1990 SOIL	2-B7 NA 3/1990 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	10000	3400	100	0.20 J	ND	0.57	ND	ND	ND	ND
Acenaphthylene	NA	NA	NA	0.20 J	ND	0.77 J	ND	0.075 J	ND	ND
Anthracene	10000	10000	100	0.59	ND	2.5	0.61	0.20 J	0.018 J	8.2
Benidine	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Benzo(a)anthracene	4	0.9	500	1.8	ND	9.5	6.0	0.89 J	0.81	16 J
Benzo(a)pyrene	0.66	0.66	100	1.9	ND	9.2	6.6	0.84	0.85	16
Benzo(b)fluoranthene	4	0.9	500	1.7	ND	8.3	6.2	0.85	0.72	14
Benzo(k)fluoranthene	4	0.9	50	1.6	ND	7.9	4.9	0.64	0.59	11
Benzo(g,h,i)perylene	NA	NA	NA	1.6	ND	7.0	6.0	0.57	0.65	12
Bis(2-Ethylhexyl)phthalate	210	49	100	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	10000	1100	100	ND	ND	ND	ND	ND	ND	ND
Chrysene	40	9	500	2.1	ND	9.3	6.2	0.96	0.74	15
Dibenz(a,h)anthracene	0.66	0.66	100	ND	0.68	0.37 J	ND	0.20 J	ND	ND
Diethylphthalate	10000	10000	50	NR	NR	NR	NR	NR	NR	NR
Di-n-butyl phthalate	10000	5700	100	ND	ND	0.18 J	ND	ND	ND	ND
Fluoranthene	10000	2300	100	4.3	ND	15	8.1	1.6	1.3	34
Fluorene	10000	2300	100	ND	ND	ND	ND	ND	ND	2.0 J
Indeno(1,2,3-cd)pyrene	4	0.9	500	1.6	ND	6.8	5.1	0.57	0.64	12
Naphthalene	4200	230	100	0.22 J	ND	0.51	0.31 J	0.21	ND	ND
Phenanthrene	NA	NA	NA	2.7	ND	7.6	1.1 J	1.0	0.82	33
Pyrene	10000	1700	100	4.4	ND	15	7.5	1.3	1.6	32
Total TarGeted BNs	NA	NA	NA	24.3	0.68	99.2	57.2	8.54	7.91	187
Total Targeted CaPAHs	NA	NA	NA	10.7	0.68	51.0	35.0	3.86	3.54	68

Notes:

NA - Not available.

ND - Not detected

NR - Not analyzed or data not available.

J - Estimated value.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 5**  
**POLYCYCLIC AROMATIC HYDROCARBON LABORATORY ANALYTICAL RESULTS**  
**TEXACO - PIRELLI**  
**BAYONNE, NEW JERSEY**

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				2-B8 NA 3/1990 SOIL	2-B9 NA 3/1990 SOIL	2-B10 NA 3/1990 SOIL	2-B11 NA 3/1990 SOIL	2-B12 NA 3/1990 SOIL	2-B13 NA 3/1990 SOIL	2-B14 NA 3/1990 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	10000	3400	100	0.26 J	ND	ND	0.34 J	0.15	0.43	ND
Acenaphthylene	NA	NA	NA	0.20 J	ND	ND	ND	ND	ND	ND
Anthracene	10000	10000	100	0.78	0.57	ND	0.70	0.24	0.80	ND
Benidine	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Benzo(a)anthracene	4	0.9	500	3.3	2.3	0.75	2.9	0.59	1.2	0.11
Benzo(a)pyrene	0.66	0.66	100	2.9	2.5	0.97	2.9	0.57	0.80	0.068
Benzo(b)fluoranthene	4	0.9	500	3.0	2.5	1.6	5.3	0.55	1.7	0.21
Benzo(k)fluoranthene	4	0.9	50	2.5	1.7	ND	ND	0.47	ND	ND
Benzo(g,h,i)perylene	NA	NA	NA	1.9	2.4	0.81	2.2	0.29	0.43	0.10 J
Bis(2-Ethylhexyl)phthalate	210	49	100	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	10000	1100	100	ND	ND	ND	0.26 J	ND	ND	ND
Chrysene	40	9	500	3.5	2.4	0.77	2.8	0.59	1.3	0.29 J
Dibenz(a,h)anthracene	0.66	0.66	100	0.16 J	ND	ND	ND	ND	ND	ND
Diethylphthalate	10000	10000	50	NR	NR	NR	NR	NR	NR	NR
Di-n-butyl phthalate	10000	5700	100	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	10000	2300	100	6.9	4.6	0.70	6.9	1.2	2.5	0.12
Fluorene	10000	2300	100	0.26 J	ND	ND	0.28 J	0.12	0.54	ND
Indeno(1,2,3-cd)pyrene	4	0.9	500	2.1	2.0	0.75	2.0	0.34	0.44	ND
Naphthalene	4200	230	100	1.6	ND	ND	ND	0.062	0.13	0.036 J
Phenanthrene	NA	NA	NA	5.1	2.6	0.20 J	2.9	0.99	3.4	0.25
Pyrene	10000	1700	100	5.2	3.3	1.0	4.1	1.0	2.0	0.14
Total Targeted BNs	NA	NA	NA	38.8	26.9	7.35	32.7	7.16	15.5	0.90
Total Targeted CaPAHs	NA	NA	NA	17.3	13.3	4.84	15.9	3.11	5.44	0.39

Notes:

NA - Not available.

ND - Not detected

NR - Not analyzed or data not available.

J - Estimated value.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 5**  
**POLYCYCLIC AROMATIC HYDROCARBON LABORATORY ANALYTICAL RESULTS**  
**TEXACO - PIRELLI**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				2-B15	2-B16	2-B17	2-B18	2-B19	2-B20	2-B21
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				3/1990	3/1990	3/1990	3/1990	3/1990	3/1990	3/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	10000	3400	100	ND	ND	ND	0.33 J	ND	ND	ND
Acenaphthylene	NA	NA	NA	ND	0.38 J	ND	0.54 J	ND	ND	ND
Anthracene	10000	10000	100	ND	0.88	ND	1.1	0.28 J	ND	ND
Benzidine	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Benzo(a)anthracene	4	0.9	500	0.25 J	8.0	ND	2.8	0.83 J	ND	0.15 J
Benzo(a)pyrene	0.66	0.66	100	0.23	7.5	ND	3.0	0.70	ND	0.17
Benzo(b)fluoranthene	4	0.9	500	0.47	13	ND	3.0	1.1	ND	0.33
Benzo(k)fluoranthene	4	0.9	50	ND	ND	ND	1.9	ND	ND	ND
Benzo(g,h,i)perylene	NA	NA	NA	0.27	7.1	ND	3.1	0.89	ND	0.14
Bis(2-Ethylhexyl)phthalate	210	49	100	ND	ND	ND	1.1	ND	ND	ND
Butyl benzyl phthalate	10000	1100	100	ND	ND	ND	ND	ND	ND	ND
Chrysene	40	9	500	0.49	8.3	ND	3.0	0.91	ND	0.22
Dibenz(a,h)anthracene	0.66	0.66	100	ND	0.60	ND	0.22 J	ND	ND	ND
Diethylphthalate	10000	10000	50	NR	NR	NR	NR	NR	NR	NR
Di-n-butyl phthalate	10000	5700	100	ND	ND	ND	ND	ND	ND	0.22 J
Fluoranthene	10000	2300	100	0.31	8.5	ND	6.1	1.9	0.16 J	0.23
Fluorene	10000	2300	100	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	4	0.9	500	0.23	6.5	ND	2.3	0.51 J	ND	0.14
Naphthalene	4200	230	100	ND	0.14 J	ND	ND	ND	ND	ND
Phenanthrene	NA	NA	NA	0.33	3.1	ND	3.9	1.5	ND	0.19 J
Pyrene	10000	1700	100	0.49	16	ND	4.7	1.5	ND	0.23
Total TaRgeted BNs	NA	NA	NA	2.82	79.5	ND	36	8.50	ND	1.32
Total Targeted CaPAHs	NA	NA	NA	1.19	43.5	ND	16	2.71	ND	0.86

Notes:

NA - Not available.

ND - Not detected

NR - Not analyzed or data not available.

J - Estimated value.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 5**  
**POLYCYCLIC AROMATIC HYDROCARBON LABORATORY ANALYTICAL RESULTS**  
**TEXACO - PIRELLI**  
**BAYONNE, NEW JERSEY**

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				2-B22 NA 3/1990 SOIL	2-B23 NA 3/1990 SOIL	2-B24 NA 3/1990 SOIL	2-B25 NA 3/1990 SOIL	2-B26 NA 3/1990 SOIL	2-B27 NA 3/1990 SOIL	2-B28 NA 3/1990 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	10000	3400	100	ND	0.38	16	ND	ND	0.20 J	ND
Acenaphthylene	NA	NA	NA	ND	0.63 J	ND	ND	ND	ND	ND
Anthracene	10000	10000	100	ND	1.3	51	ND	0.39 J	0.53	ND
Benzidine	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Benzo(a)anthracene	4	0.9	500	0.11 J	3.7	140	0.11 J	1.9 J	2.3	0.51 J
Benzo(a)pyrene	0.66	0.66	100	0.096 J	4.5	130	0.098	0.22	0.22	0.53
Benzo(b)fluoranthene	4	0.9	500	0.12 J	4.1	110	0.13 J	2.2	4.1	0.68 J
Benzo(k)fluoranthene	4	0.9	50	0.75 J	3.0	110	0.083 J	2.0	ND	0.4 J
Benzo(g,h,i)perylene	NA	NA	NA	0.079 J	ND	84	0.086 J	1.7	1.8	0.51
Bis(2-Ethylhexyl)phthalate	210	49	100	ND	ND	ND	ND	0.33 J	ND	ND
Butyl benzyl phthalate	10000	1100	100	ND	ND	ND	ND	0.63 J	ND	ND
Chrysene	40	9	500	0.13	3.4	140	0.15	2.1	2.6	0.68
Dibenz(a,h)anthracene	0.66	0.66	100	ND	0.40 J	ND	ND	ND	ND	ND
Diethylphthalate	10000	10000	50	NR	NR	NR	NR	NR	NR	NR
Di-n-butyl phthalate	10000	5700	100	ND	ND	ND	ND	0.30 J	ND	0.22 J
Fluoranthene	10000	2300	100	0.13	7.3	390	0.25	4.2	4.6	1.3
Fluorene	10000	2300	100	ND	0.42	18	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	4	0.9	500	ND	4.0	95	0.075 J	1.5	1.8	0.44 J
Naphthalene	4200	230	100	0.14	0.57	ND	0.12	ND	0.15 J	ND
Phenanthrene	NA	NA	NA	0.11 J	4.5	180	0.20 J	1.9	2.1	0.73 J
Pyrene	10000	1700	100	0.14	5.7	240	0.21	3.4	4.9	0.95
Total Targeted BNs	NA	NA	NA	0.54	42.93	6704	0.83	19.2	24.95	3.97
Total Targeted CaPAHs	NA	NA	NA	0.13	22.7	725	0.25	7.8	11.0	1.21

Notes:

NA - Not available.

ND - Not detected

NR - Not analyzed or data not available.

J - Estimated value.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 5**  
**POLYCYCLIC AROMATIC HYDROCARBON LABORATORY ANALYTICAL RESULTS**  
**TEXACO - PIRELLI**  
**BAYONNE, NEW JERSEY**

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				2-B29 NA 3/1990 SOIL	2-B30 NA 3/1990 SOIL	2-B31 NA 3/1990 SOIL	2-B32 NA 3/1990 SOIL	2-B33 NA 3/1990 SOIL	2-B34 NA 3/1990 SOIL	2-B35 NA 3/1990 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	10000	3400	100	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND
Anthracene	10000	10000	100	ND	0.85	ND	ND	ND	0.59 J	ND
Benidine	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Benzo(a)anthracene	4	0.9	500	ND	0.44	ND	ND	ND	0.29	ND
Benzo(a)pyrene	0.66	0.66	100	ND	0.36	ND	ND	ND	0.30	ND
Benzo(b)fluoranthene	4	0.9	500	0.35 J	0.96	ND	ND	ND	0.35	ND
Benzo(k)fluoranthene	4	0.9	50	ND	ND	ND	ND	ND	0.25	ND
Benzo(g,h,i)perylene	NA	NA	NA	ND	0.41	ND	ND	ND	0.38	ND
Bis(2-Ethylhexyl)phthalate	210	49	100	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	10000	1100	100	ND	ND	ND	ND	ND	ND	ND
Chrysene	40	9	500	0.40 J	0.60	ND	ND	ND	0.35	ND
Dibenz(a,h)anthracene	0.66	0.66	100	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	10000	10000	50	NR	NR	NR	NR	NR	NR	NR
Di-n-butyl phthalate	10000	5700	100	ND	0.43	ND	ND	ND	ND	ND
Fluoranthene	10000	2300	100	0.32 J	1.0	ND	ND	ND	0.64	ND
Fluorene	10000	2300	100	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	4	0.9	500	ND	0.40	ND	ND	ND	0.24	ND
Naphthalene	4200	230	100	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	NA	NA	NA	ND	0.71	ND	ND	ND	0.32	ND
Pyrene	10000	1700	100	ND	0.95	ND	ND	ND	0.65	ND
Total TaRgeted BNs	NA	NA	NA	ND	7.11	ND	ND	ND	3.77	ND
Total Targeted CaPAHs	NA	NA	NA	ND	2.76	ND	ND	ND	1.78	ND

Notes:

NA - Not available.

ND - Not detected

NR - Not analyzed or data not available.

J - Estimated value.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.



**TABLE 5**  
**POLYCYCLIC AROMATIC HYDROCARBON LABORATORY ANALYTICAL RESULTS**  
**TEXACO - PIRELLI**  
**BAYONNE, NEW JERSEY**

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				2-B36 NA 3/1990 SOIL	3-B2 NA 9/9/1990 SOIL	3-B4 NA 9/9/1990 SOIL	3-B5 NA 9/9/1990 SOIL	3-B7 NA 9/9/1990 SOIL	3-B8 NA 9/9/1990 SOIL	3-B9 NA 9/9/1990 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	10000	3400	100	ND	ND	ND	ND	22	ND	0.65 J
Acenaphthylene	NA	NA	NA	ND	NR	NR	NR	NR	NR	NR
Anthracene	10000	10000	100	5.0 J	ND	0.31 J	0.33 J	48	0.18 J	0.28 J
Benaidine	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Benzo(a)anthracene	4	0.9	500	29	0.24 J	2.8	1.3	150	1.3	2.5
Benzo(a)pyrene	0.66	0.66	100	44	0.31 J	3.2	1.6	130	1.4	2.3
Benzo(b)fluoranthene	4	0.9	500	47	0.29 J	2.6	1.3	110	1.3	1.1
Benzo(k)fluoranthene	4	0.9	50	30	0.24 J	2.2	1.4	120	1.0 J	2.0
Benzo(g,h,i)perylene	NA	NA	NA	42	ND	1.8	ND	90	ND	2.3
Bis(2-Ethylhexyl)phthalate	210	49	100	ND	ND	0.15 J	ND	ND	ND	0.67 J
Butyl benzyl phthalate	10000	1100	100	ND	ND	ND	ND	120	ND	ND
Chrysene	40	9	500	34	0.33 J	3.5	1.8	150	1.4	2.9
Dibenz(a,h)anthracene	0.66	0.66	100	2.1 J	NR	NR	NR	NR	NR	NR
Diethylphthalate	10000	10000	50	NR	NR	NR	NR	NR	NR	NR
Di-n-butyl phthalate	10000	5700	100	ND	0.82	ND	ND	ND	ND	ND
Fluoranthene	10000	2300	100	50	0.29 J	1.6	1.5	210	1.3	4.0
Fluorene	10000	2300	100	ND	ND	ND	ND	14	ND	ND
Indeno(1,2,3-cd)pyrene	4	0.9	500	35	ND	ND	ND	83	ND	1.4
Naphthalene	4200	230	100	ND	ND	0.15 J	1.1 J	4.3 J	0.22 J	1.5
Phenanthrene	NA	NA	NA	20	0.18 J	1.5	1.5	160	1.0 J	2.2
Pyrene	10000	1700	100	42	0.29 J	1.8	1.2	100	1.1 J	1.8
Total Targeted BNs	NA	NA	NA	373	NR	NR	NR	NR	NR	NR
Total Targeted CaPAHs	NA	NA	NA	219	NR	NR	NR	NR	NR	NR

**Notes:**

NA - Not available.

ND - Not detected

NR - Not analyzed or data not available.

J - Estimated value.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 5**  
**POLYCYCLIC AROMATIC HYDROCARBON LABORATORY ANALYTICAL RESULTS**  
**TEXACO - PIRELLI**  
**BAYONNE, NEW JERSEY**

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				3-B10 NA 9/9/1990 SOIL	3-B11 NA 9/9/1990 SOIL	3-B12 NA 9/9/1990 SOIL	3-B13 NA 9/9/1990 SOIL	CG-TX-B2 0.0 - 0.5 8/2/2000 SOIL	CG-TX-B2 0.5 - 1.0 8/2/2000 SOIL	CG-TX-B2 1.0 - 1.5 8/2/2000 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	10000	3400	100	0.19 J	ND	ND	0.13 J	NR	NR	NR
Acenaphthylene	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Anthracene	10000	10000	100	0.34 J	ND	ND	0.27 J	NR	NR	NR
Ben-zidine	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Ben-zo(a)anthracene	4	0.9	500	1.2	ND	0.46 J	0.81 J	0.597	0.807	1.7
Ben-zo(a)pyrene	0.66	0.66	100	1.2	0.85 J	0.49 J	0.70 J	0.577	0.808	1.83
Ben-zo(b)fluoranthene	4	0.9	500	2.3	0.77 J	0.93	1.2	0.675	0.855	1.94
Ben-zo(k)fluoranthene	4	0.9	50	ND	0.60	ND	ND	0.439	0.661	1.54
Ben-zo(g,h,i)perylene	NA	NA	NA	ND	ND	ND	ND	NR	NR	NR
Bis(2-Ethylhexyl)phthalate	210	49	100	ND	ND	ND	ND	NR	NR	NR
Butyl benzyl phthalate	10000	1100	100	ND	ND	ND	ND	NR	NR	NR
Chrysene	40	9	500	1.5	0.52	0.53 J	1.1	NR	NR	NR
Dibenz(a,h)anthracene	0.66	0.66	100	NR	NR	NR	NR	NR	NR	NR
Diethylphthalate	10000	10000	50	NR	NR	NR	NR	NR	NR	NR
Di-n-butyl phthalate	10000	5700	100	ND	ND	ND	ND	NR	NR	NR
Fluoranthene	10000	2300	100	3.4	0.57 J	0.78	1.8	NR	NR	NR
Fluorene	10000	2300	100	0.12 J	ND	ND	ND	NR	NR	NR
Indeno(1,2,3-cd)pyrene	4	0.9	500	ND	ND	ND	ND	0.287	0.447	0.947
Naphthalene	4200	230	100	0.21 J	ND	ND	ND	NR	NR	NR
Phenanthrene	NA	NA	NA	2.0	ND	0.23 J	1.6	NR	NR	NR
Pyrene	10000	1700	100	0.76	0.82 J	0.95	2.1	NR	NR	NR
Total Tar-geted BNs	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Total Targeted CaPAHs	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR

**Notes:**

NA - Not available.

ND - Not detected

NR - Not analyzed or data not available.

U - Compound not detected at corresponding detection limit.

J - Estimated value.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 5**  
**POLYCYCLIC AROMATIC HYDROCARBON LABORATORY ANALYTICAL RESULTS**  
**TEXACO - PIRELLI**  
**BAYONNE, NEW JERSEY**

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				CG-TX-B2 1.5 - 2.0 8/2/2000 SOIL	CG-TX-B2 2.0 - 2.5 8/2/2000 SOIL	CG-TX-B2 2.5 - 3.0 8/2/2000 SOIL	CG-TX-B2 3.0 - 3.5 8/2/2000 SOIL	CG-TX-B2 3.5 - 4.0 8/2/2000 SOIL	CG-TX-B4 0.0 - 0.5 8/2/2000 SOIL	CG-TX-B4 0.5 - 1.0 8/2/2000 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	10000	3400	100	NR	NR	NR	NR	NR	NR	NR
Acenaphthylene	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Anthracene	10000	10000	100	NR	NR	NR	NR	NR	NR	NR
Benidine	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Benzo(a)anthracene	4	0.9	500	0.138	0.0839	0.693	0.769	0.536	4.09	8.38
Benzo(a)pyrene	0.66	0.66	100	0.141	0.0887	0.677	0.713	0.563	1.51	2.05
Benzo(b)fluoranthene	4	0.9	500	0.172	0.0777	0.701	0.75	0.598	1.45	1.82
Benzo(k)fluoranthene	4	0.9	50	0.105	0.0819	0.548	0.653	0.473	1.46	1.4
Benzo(g,h,i)perylene	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Bis(2-Ethylhexyl)phthalate	210	49	100	NR	NR	NR	NR	NR	NR	NR
Butyl benzyl phthalate	10000	1100	100	NR	NR	NR	NR	NR	NR	NR
Chrysene	40	9	500	NR	NR	NR	NR	NR	22.9	47
Dibenz(a,h)anthracene	0.66	0.66	100	NR	NR	NR	NR	NR	0.502	0.836
Diethylphthalate	10000	10000	50	NR	NR	NR	NR	NR	NR	NR
Di-n-butyl phthalate	10000	5700	100	NR	NR	NR	NR	NR	NR	NR
Fluoranthene	10000	2300	100	NR	NR	NR	NR	NR	NR	NR
Fluorene	10000	2300	100	NR	NR	NR	NR	NR	NR	NR
Indeno(1,2,3-cd)pyrene	4	0.9	500	0.0739	0.0468	0.327	0.318	0.28	0.91	1.17
Naphthalene	4200	230	100	NR	NR	NR	NR	NR	NR	NR
Phenanthrene	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Pyrene	10000	1700	100	NR	NR	NR	NR	NR	NR	NR
Total Targeted BNs	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR
Total Targeted CaPAHs	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 5**  
**POLYCYCLIC AROMATIC HYDROCARBON LABORATORY ANALYTICAL RESULTS**  
**TEXACO - PIRELLI**  
**BAYONNE, NEW JERSEY**

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				CG-TX-B4 1.0 - 1.5 8/2/2000 SOIL	CG-TX-B4 1.5 - 2.0 8/2/2000 SOIL	CG-TX-B4 2.0 - 2.5 8/2/2000 SOIL	CG-TX-B4 2.5 - 3.0 8/2/2000 SOIL	CG-TX-B4 3.0 - 3.5 8/2/2000 SOIL	CG-TX-B4 3.5 - 4.0 8/2/2000 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acenaphthene	10000	3400	100	NR	NR	NR	NR	NR	NR
Acenaphthylene	NA	NA	NA	NR	NR	NR	NR	NR	NR
Anthracene	10000	10000	100	NR	NR	NR	NR	NR	NR
Benzidine	NA	NA	NA	NR	NR	NR	NR	NR	NR
Benzo(a)anthracene	4	0.9	500	4.4	0.704	0.533	ND	ND	ND
Benzo(a)pyrene	0.66	0.66	100	3.72	0.735	0.494	ND	ND	ND
Benzo(b)fluoranthene	4	0.9	500	3.72	0.891	0.602	ND	ND	ND
Benzo(k)fluoranthene	4	0.9	50	3.04	0.668	0.463	ND	ND	ND
Benzo(g,h,i)perylene	NA	NA	NA	NR	NR	NR	NR	NR	NR
Bis(2-Ethylhexyl)phthalate	210	49	100	NR	NR	NR	NR	NR	NR
Butyl benzyl phthalate	10000	1100	100	NR	NR	NR	NR	NR	NR
Chrysene	40	9	500	18.3	0.954	0.665	ND	ND	ND
Dibenz(a,h)anthracene	0.66	0.66	100	0.818	0.135	0.081	ND	ND	ND
Diethylphthalate	10000	10000	50	NR	NR	NR	NR	NR	NR
Di-n-butyl phthalate	10000	5700	100	NR	NR	NR	NR	NR	NR
Fluoranthene	10000	2300	100	NR	NR	NR	NR	NR	NR
Fluorene	10000	2300	100	NR	NR	NR	NR	NR	NR
Indeno(1,2,3-cd)pyrene	4	0.9	500	1.96	0.408	0.25	ND	ND	ND
Naphthalene	4200	230	100	NR	NR	NR	NR	NR	NR
Phenanthrene	NA	NA	NA	NR	NR	NR	NR	NR	NR
Pyrene	10000	1700	100	NR	NR	NR	NR	NR	NR
Total Targeted BNs	NA	NA	NA	NR	NR	NR	NR	NR	NR
Total Targeted CaPAHs	NA	NA	NA	NR	NR	NR	NR	NR	NR

**Notes:**

NA - Not available.

ND - Not detected

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 6**  
**LEAD, COPPER, & ZINC LABORATORY ANALYTICAL RESULTS FROM EXCAVATED SOIL**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				H-3	H-4	H-7	H-8	H-9	3	5
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.5 - 1.0	0.5 - 1.0
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	27000	1500	1100	1000	2700	4400	6400
Copper	600	600	NA	NR	NR	NR	NR	NR	14000	1100
Zinc	1500	1500	NA	NR	NR	NR	NR	NR	3700	2700

SAMPLE ID				I0	I1	I2	I3	I5	PX-1	PX-3
SAMPLE DEPTH (FEET)				0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	NA	0.0 - 0.5
DATE COLLECTED				NA	NA	NA	NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	500	2800	3900	4700	920	NR	NR
Copper	600	600	NA	160	NR	NR	820	180	NR	483
Zinc	1500	1500	NA	650	3500	8000	4800	1300	614	NR

SAMPLE ID				B-3	B-2	B-4	B-1A
SAMPLE DEPTH (FEET)				0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
DATE COLLECTED				NA	NA	NA	NA
MATRIX				SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg
Lead	600	400	NA	439	146	335	206
Copper	600	600	NA	NR	NR	NR	NR
Zinc	1500	1500	NA	NR	NR	NR	NR

**TOTAL PETROLEUM HYDROCARBON LABORATORY ANALYTICAL RESULTS FROM SOIL EXCAVATED**

SAMPLE ID				H-3	H-4	H-7	H-8	H-9
SAMPLE DEPTH (FEET)				1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	2.5 - 3.0	2.5 - 3.0
DATE COLLECTED				1995	1995	1995	1995	1995
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	789	30.6	130	227	3030

Notes:

NA - Not available.

NR - Not analyzed or data not available.

U - Compound not detected at corresponding detection limit.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 7**  
**OTHER METALS LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				2-B1	2-B2	2-B3	2-B4	2-B5	2-B6	2-B7	2-B8	2-B9	2-B10
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	340	14	NA	<1	<1	5.52	<1	<1.2	<1.1	<1	1.59	1.55	<1
Arsenic	20	20	NA	10.3	3.6	8.75	8.14	9.54	18.8	2.14	16.3	4.66	9.13
Beryllium	1	1	NA	<1	<1	1.33	<1	<1	<1.1	<1	<1	<1	<1
Cadmium	100	39	NA	<1	<1	<0.95	<1	<1	<1.1	<1	<1	1.11	<1
Chromium	6,100	240	NA	38.8	11.9	22.6	10.4	20.8	20.1	6.21	14.1	13.1	15.5
Mercury	270	14	NA	0.76	<0.09	0.44	0.94	0.3	0.23	<0.09	0.18	1.35	1.13
Nickel	2,400	250	NA	15.9	9	35.9	11.9	29.4	25.2	7.92	14.1	16.4	17.8
Selenium	3,100	63	NA	<0.9	1.12	<0.76	0.83	<0.98	0.69	0.86	1.59	1.11	1.52
Silver	4,100	110	NA	<2	<2	1.9	<2.1	<2.5	2.29	<2	<2	2.22	<2
Thallium	2	2	NA	<0.7	<0.67	<0.57	<0.3	<0.73	<0.69	<0.64	<0.68	0	<0.76

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 7**  
**OTHER METALS LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				2-B11	2-B12	2-B13	2-B14	2-B15	2-B16	2-B17	2-B18	2-B19	2-B20
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	340	14	NA	<1.06	<1	4.29	3.31	<1	<1	<0.95	<0.94	<1.26	<1.16
Arsenic	20	20	NA	1.7	4.91	14	4.49	3.05	4.5	1.34	5.48	12.3	4.38
Beryllium	1	1	NA	<1.06	<1	<1	<1	<1	<1	<1	<0.94	<1.26	<1.16
Cadmium	100	39	NA	<1.06	<1	<1	16.3	<1	1.35	<0.95	<0.94	<1.26	<1.16
Chromium	6,100	240	NA	4.9	17.2	9.67	5.9	8.38	18.2	10.9	10.6	7.06	10.9
Mercury	270	14	NA	0.34	<0.12	<0.07	<0.92	<0.11	0.3	<0.08	0.62	<0.08	<0.12
Nickel	2,400	250	NA	4.05	20.5	15.9	14.9	12.2	27	10.1	9.64	11.6	9.93
Selenium	3,100	63	NA	<0.64	<0.61	0.86	<9.5	<1	1.12	0.77	<0.76	2.01	<0.69
Silver	4,100	110	NA	<2.13	<2.1	2	<2	<2.5	2.7	<1.9	<1.9	<2.52	<23.1
Thallium	2	2	NA	<0.64	<0.61	<0.64	<710	<0.76	<0.67	<0.57	<0.57	<0.75	<0.69

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 7**  
**OTHER METALS LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				2-B21	2-B22	2-B23	2-B24	2-B25	2-B26	2-B27	2-B28	2-B29	2-B30
SAMPLE DEPTH (FEET)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DATE COLLECTED				3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990	3/28/1990
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	340	14	NA	<1.17	<1.18	<1	<1	<1.06	<1.02	<1.01	<1.06	<1.28	<1.14
Arsenic	20	20	NA	22.2	5.46	6.6	2.17	11.1	10.6	11.9	11.6	9.93	7.5
Beryllium	1	1	NA	<1.17	<1.18	<1	<1	<1.06	3.47	<1.01	<1.06	<1.28	<1.14
Cadmium	100	39	NA	<1.17	<1.18	<1	<1	<1.06	<1.02	<1.01	<1.06	<1.28	<1.14
Chromium	6,100	240	NA	9.59	4.5	8.45	11.6	6.82	28.2	13.1	14.8	4.08	7.49
Mercury	270	14	NA	0.13	<0.12	1.89	1	0.21	3.88	1.38	0.3	<0.12	<0.11
Nickel	2,400	250	NA	23.4	5.21	7.83	4.75	5.75	386	11.7	13.7	5.61	11.8
Selenium	3,100	63	NA	1.64	0.71	0.82	<1	0.85	1.02	<0.81	<0.84	<0.76	<0.68
Silver	4,100	110	NA	<2.24	<2.37	<2.1	<2	<2.13	<2.04	<2.02	<2.11	<2.55	<2.27
Thallium	2	2	NA	<0.7	<0.71	<0.62	0	<0.64	<0.61	<0.61	<0.63	<0.76	<0.68

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.



TABLE 7  
OTHER METALS LABORATORY ANALYTICAL RESULTS  
FORMER PIRELLI CABLE COMPANY  
BAYONNE, NEW JERSEY

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				2-B31 NA 3/28/1990 SOIL	2-B32 NA 3/28/1990 SOIL	2-B33 NA 3/28/1990 SOIL	2-B34 NA 3/28/1990 SOIL	2-B35 NA 3/28/1990 SOIL	2-B36 NA 3/28/1990 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	340	14	NA	<1.14	<1.18	<0.98	<1.17	<1.06	<.29
Arsenic	20	20	NA	3.21	8.53	3.54	2.81	2.76	18.9
Beryllium	1	1	NA	<1.14	<1.18	<0.98	<1.17	<1.06	1,290
Cadmium	100	39	NA	<1.14	<1.18	<0.98	<1.17	<1.06	4.64
Chromium	6,100	240	NA	8.7	7.82	9.85	4.45	10.2	24.5
Mercury	270	14	NA	<0.11	<0.82	<0.09	<0.12	<0.11	<0.12
Nickel	2,400	250	NA	5.27	7.11	6.9	6.32	7.21	56.8
Selenium	3,100	63	NA	<0.69	<0.71	<0.59	<0.7	<0.64	<0.78
Silver	4,100	110	NA	<2.29	<2.37	<1.97	<2.3	<2.12	<2.58
Thallium	2	2	NA	<0.69	<0.71	<0.59	<0.7	<0.64	<0.78

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 7**  
**OTHER METALS LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				CG-TX-B2 0 - 0.5 8/2/2000 SOIL	CG-TX-B2 0.5 - 1 8/2/2000 SOIL	CG-TX-B2 1 - 1.5 8/2/2000 SOIL	CG-TX-B2 1.5 - 2 8/2/2000 SOIL	CG-TX-B2 2 - 2.5 8/2/2000 SOIL	CG-TX-B2 2.5 - 3 8/2/2000 SOIL	CG-TX-B2 3 - 3.5 8/2/2000 SOIL	CG-TX-B2 3.5 - 4 8/2/2000 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	340	14	NA	20	9.7	<6.8	<6.5	<6.8	<7.0	<7.2	<7.1
Arsenic	20	20	NA	30.2	15.7	13.5	4.2	8.3	13.2	18.3	20.8
Beryllium	1	1	NA	NR	NR	NR	NR	NR	NR	NR	NR
Cadmium	100	39	NA	NR	NR	NR	NR	NR	NR	NR	NR
Chromium	6,100	240	NA	NR	NR	NR	NR	NR	NR	NR	NR
Mercury	270	14	NA	NR	NR	NR	NR	NR	NR	NR	NR
Nickel	2,400	250	NA	NR	NR	NR	NR	NR	NR	NR	NR
Selenium	3,100	63	NA	NR	NR	NR	NR	NR	NR	NR	NR
Silver	4,100	110	NA	NR	NR	NR	NR	NR	NR	NR	NR
Thallium	2	2	NA	NR	NR	NR	NR	NR	NR	NR	NR

**Notes:**

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

TABLE 7  
OTHER METALS LABORATORY ANALYTICAL RESULTS  
FORMER PIRELLI CABLE COMPANY  
BAYONNE, NEW JERSEY

SAMPLE ID				CG-TX-B3	CG-TX-B3	CG-TX-B3	CG-TX-B3	CG-TX-B3	CG-TX-B3	CG-TX-B3	CG-TX-B3
SAMPLE DEPTH (FEET)				0 - 0.5	0.5 - 1	1 - 1.5	1.5 - 2	2 - 2.5	2.5 - 3	3 - 3.5	3.5 - 4
DATE COLLECTED				8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	340	14	NA	<7.4	<7.4	<6.9	<6.6	<6.7	<6.7	46.8	<7.4
Arsenic	20	20	NA	NR	NR	NR	NR	NR	NR	NR	NR
Beryllium	1	1	NA	NR	NR	NR	NR	NR	NR	NR	NR
Cadmium	100	39	NA	NR	NR	NR	NR	NR	NR	NR	NR
Chromium	6,100	240	NA	NR	NR	NR	NR	NR	NR	NR	NR
Mercury	270	14	NA	NR	NR	NR	NR	NR	NR	NR	NR
Nickel	2,400	250	NA	NR	NR	NR	NR	NR	NR	NR	NR
Selenium	3,100	63	NA	NR	NR	NR	NR	NR	NR	NR	NR
Silver	4,100	110	NA	NR	NR	NR	NR	NR	NR	NR	NR
Thallium	2	2	NA	NR	NR	NR	NR	NR	NR	NR	NR

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

TABLE 7  
OTHER METALS LABORATORY ANALYTICAL RESULTS  
FORMER PIRELLI CABLE COMPANY  
BAYONNE, NEW JERSEY

SAMPLE ID				CG-TX-B4	CG-TX-B4	CG-TX-B4	CG-TX-B4	CG-TX-B4	CG-TX-B4	CG-TX-B4	CG-TX-B4
SAMPLE DEPTH (FEET)				0 - 0.5	0.5 - 1	1 - 1.5	1.5 - 2	2 - 2.5	2.5 - 3	3 - 3.5	3.5 - 4
DATE COLLECTED				8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	340	14	NA	NR	NR	NR	NR	NR	NR	NR	NR
Arsenic	20	20	NA	NR	NR	NR	NR	NR	NR	NR	NR
Beryllium	1	1	NA	NR	NR	NR	NR	NR	NR	NR	NR
Cadmium	100	39	NA	NR	NR	NR	NR	NR	NR	NR	NR
Chromium	6,100	240	NA	NR	NR	NR	NR	NR	NR	NR	NR
Mercury	270	14	NA	NR	NR	NR	NR	NR	NR	NR	NR
Nickel	2,400	250	NA	NR	NR	NR	NR	NR	NR	NR	NR
Selenium	3,100	63	NA	NR	NR	NR	NR	NR	NR	NR	NR
Silver	4,100	110	NA	NR	NR	NR	NR	NR	NR	NR	NR
Thallium	2	2	NA	NR	NR	NR	NR	NR	NR	NR	NR

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

TABLE 7  
OTHER METALS LABORATORY ANALYTICAL RESULTS  
FORMER PIRELLI CABLE COMPANY  
BAYONNE, NEW JERSEY

SAMPLE ID SAMPLE DEPTH (FEET) DATE COLLECTED MATRIX				CG-TX-B5 0 - 0.5 8/1/2000 SOIL	CG-TX-B5 0.5 - 1 8/1/2000 SOIL	CG-TX-B5 1 - 1.5 8/1/2000 SOIL	CG-TX-B5 1.5 - 2 8/1/2000 SOIL	CG-TX-B5 2 - 2.5 8/1/2000 SOIL	CG-TX-B5 2.5 - 3 8/1/2000 SOIL	CG-TX-B5 3 - 3.5 8/1/2000 SOIL	CG-TX-B5 3.5 - 4 8/1/2000 SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	340	14	NA	NR	NR	NR	NR	NR	NR	NR	NR
Arsenic	20	20	NA	NR	NR	NR	NR	NR	NR	NR	NR
Beryllium	1	1	NA	NR	NR	NR	NR	NR	NR	NR	NR
Cadmium	100	39	NA	NR	NR	NR	NR	NR	NR	NR	NR
Chromium	6,100	240	NA	NR	NR	NR	NR	NR	NR	NR	NR
Mercury	270	14	NA	NR	NR	NR	NR	NR	NR	NR	NR
Nickel	2,400	250	NA	NR	NR	NR	NR	NR	NR	NR	NR
Selenium	3,100	63	NA	NR	NR	NR	NR	NR	NR	NR	NR
Silver	4,100	110	NA	NR	NR	NR	NR	NR	NR	NR	NR
Thallium	2	2	NA	NR	NR	NR	NR	NR	NR	NR	NR

Notes:

NA - Not available.

NR - Not analyzed or data not available.

NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

mg/kg - milligrams per kilogram.

**TABLE 7**  
**OTHER METALS LABORATORY ANALYTICAL RESULTS**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

SAMPLE ID				CG-TX-B6	CG-TX-B6	CG-TX-B6	CG-TX-B6	CG-TX-B6	CG-TX-B6	CG-TX-B6	CG-TX-B6
SAMPLE DEPTH (FEET)				0 - 0.5	0.5 - 1	1 - 1.5	1.5 - 2	2 - 2.5	2.5 - 3	3 - 3.5	3.5 - 4
DATE COLLECTED				8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000	8/2/2000
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
ANALYTE	NRDCSCC	RDCSCC	IGWSCC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	340	14	NA	NR	NR	NR	NR	NR	NR	NR	NR
Arsenic	20	20	NA	10.3	8.6	16.1	13.7	18.7	7.2	8.3	20.6
Beryllium	1	1	NA	NR	NR	NR	NR	NR	NR	NR	NR
Cadmium	100	39	NA	NR	NR	NR	NR	NR	NR	NR	NR
Chromium	6,100	240	NA	NR	NR	NR	NR	NR	NR	NR	NR
Mercury	270	14	NA	1.4	0.25	0.89	26.7	8.4	0.23	3.3	0.55
Nickel	2,400	250	NA	NR	NR	NR	NR	NR	NR	NR	NR
Selenium	3,100	63	NA	NR	NR	NR	NR	NR	NR	NR	NR
Silver	4,100	110	NA	NR	NR	NR	NR	NR	NR	NR	NR
Thallium	2	2	NA	NR	NR	NR	NR	NR	NR	NR	NR

Notes:

NA - Not available.

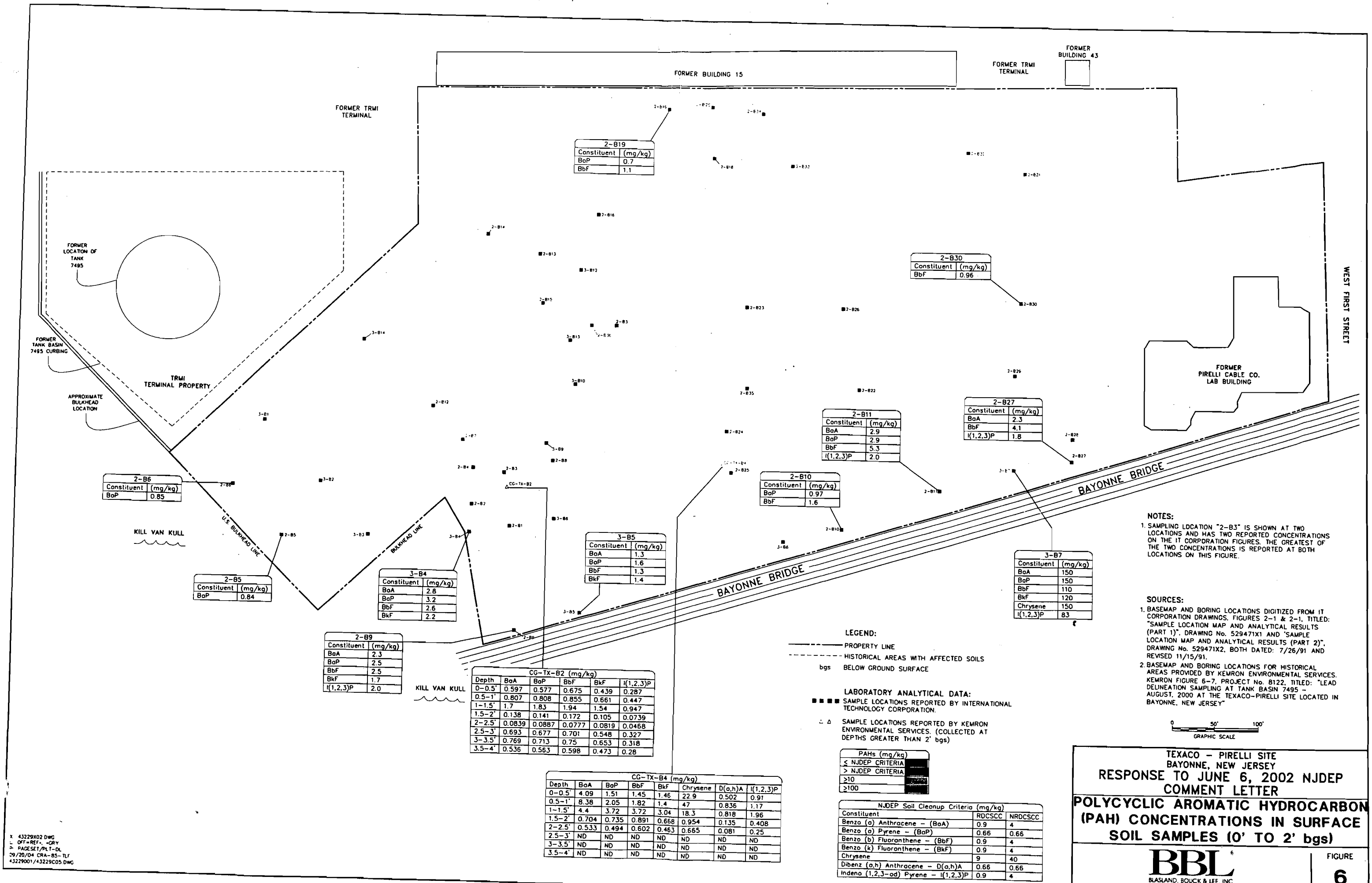
NR - Not analyzed or data not available.

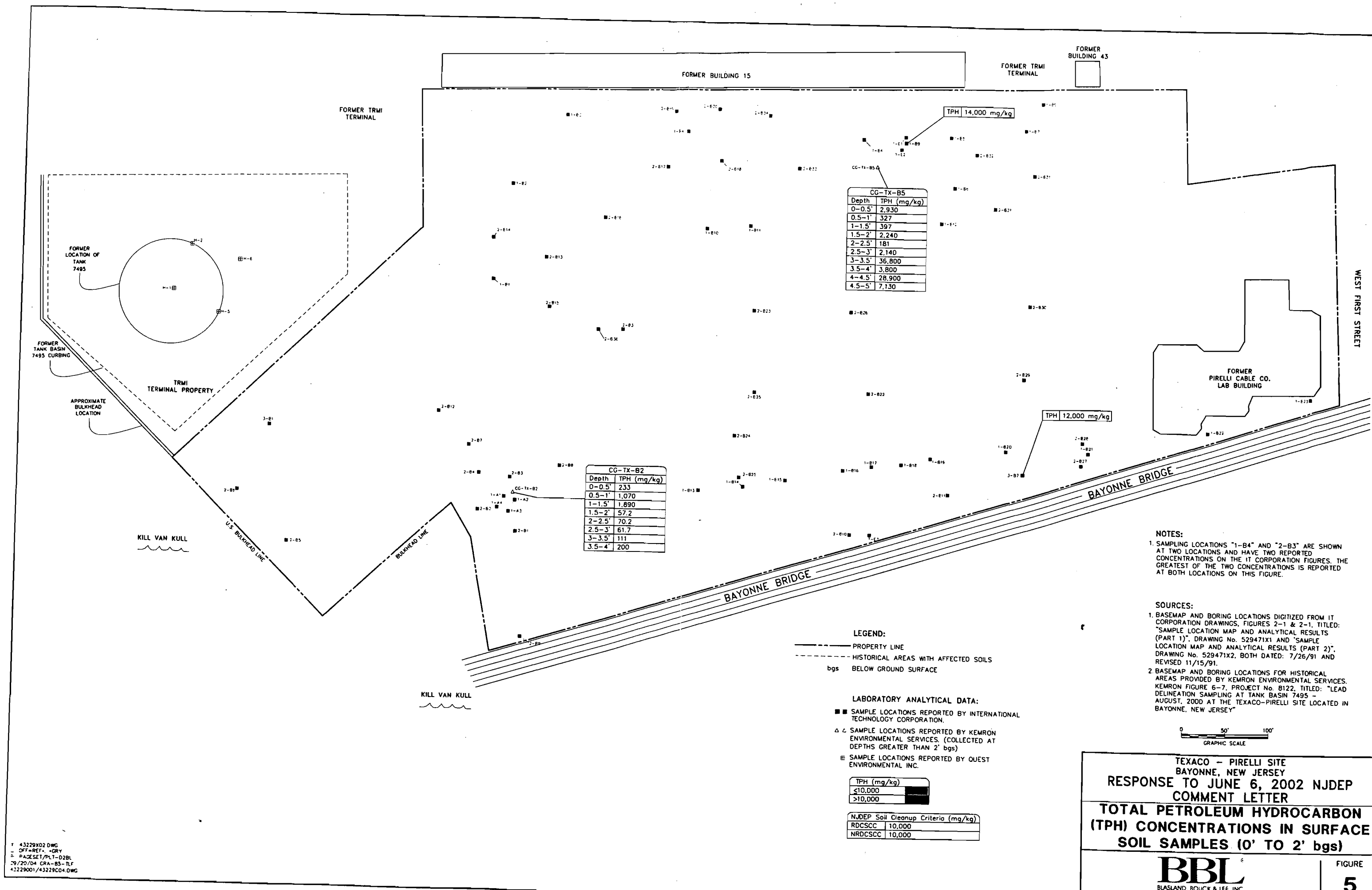
NRDCSCC - Non-residential Direct Contact Soil Cleanup Criteria.

RDCSCC - Residential Direct Contact Soil Cleanup Criteria.

IGWSCC - Impact to Groundwater Soil Cleanup Criteria.

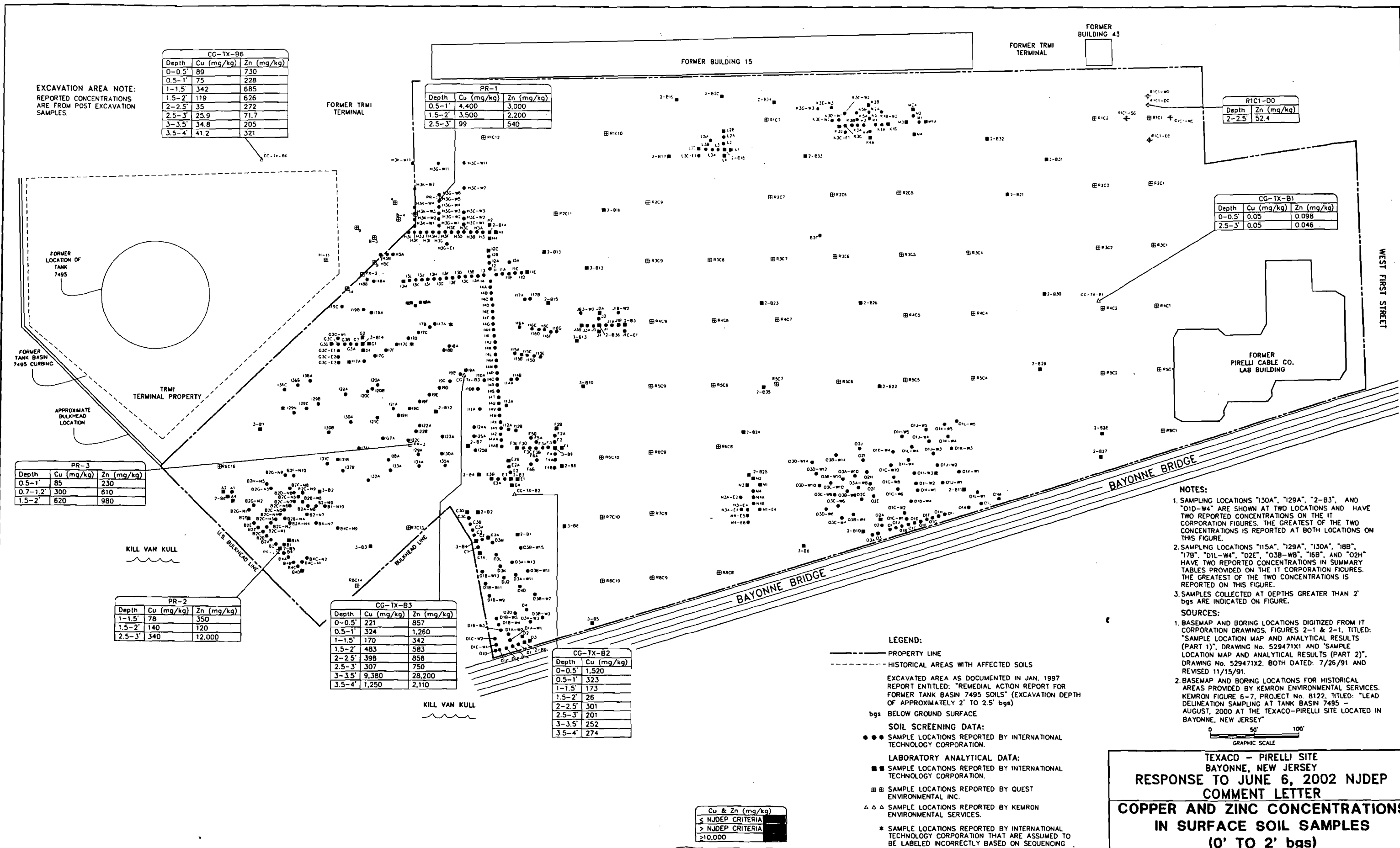
mg/kg - milligrams per kilogram.











EXCAVATION AREA NOTE:  
REPORTED CONCENTRATIONS  
ARE FROM POST EXCAVATION  
SAMPLES.

CG-TX-B6		
Depth	Cu (mg/kg)	Zn (mg/kg)
0-0.5'	89	730
0.5-1'	75	228
1-1.5'	342	685
1.5-2'	119	626
2-2.5'	35	272
2.5-3'	25.9	71.7
3-3.5'	34.8	205
3.5-4'	41.2	321

PR-1		
Depth	Cu (mg/kg)	Zn (mg/kg)
0.5-1'	4,400	3,000
1.5-2'	3,500	2,200
2.5-3'	99	540

R1C1-00		
Depth	Cu (mg/kg)	Zn (mg/kg)
2-2.5'	52.4	

CG-TX-B1		
Depth	Cu (mg/kg)	Zn (mg/kg)
0-0.5'	0.05	0.098
2.5-3'	0.05	0.046

PR-3		
Depth	Cu (mg/kg)	Zn (mg/kg)
0.5-1'	85	230
0.7-1.2'	300	610
1.5-2'	620	980

PR-2		
Depth	Cu (mg/kg)	Zn (mg/kg)
1-1.5'	78	350
1.5-2'	140	120
2.5-3'	340	12,000

CG-TX-B3		
Depth	Cu (mg/kg)	Zn (mg/kg)
0-0.5'	221	857
0.5-1'	324	1,260
1-1.5'	170	342
1.5-2'	483	583
2-2.5'	398	858
2.5-3'	307	750
3-3.5'	9,380	28,200
3.5-4'	1,250	2,110

CG-TX-B2		
Depth	Cu (mg/kg)	Zn (mg/kg)
0-0.5'	1,520	
0.5-1'	323	
1-1.5'	173	
1.5-2'	26	
2-2.5'	301	
2.5-3'	201	
3-3.5'	252	
3.5-4'	274	

Cu & Zn (mg/kg)		
	Copper	Zinc
< NJDEP CRITERIA		
> NJDEP CRITERIA		
>10,000		

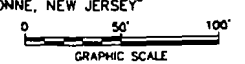
NJDEP Soil Cleanup Criteria (mg/kg)		
	Copper	Zinc
RDCSCC	600	1,500
NRDCSCC	600	1,500

NOTES:

1. SAMPLING LOCATIONS "130A", "129A", "2-B3", AND "D1D-W4" ARE SHOWN AT TWO LOCATIONS AND HAVE TWO REPORTED CONCENTRATIONS ON THE IT CORPORATION FIGURES. THE GREATEST OF THE TWO CONCENTRATIONS IS REPORTED AT BOTH LOCATIONS ON THIS FIGURE.
  2. SAMPLING LOCATIONS "115A", "129A", "130A", "18B", "17B", "D1L-W4", "D2E", "O3B-WB", "16B", AND "O2H" HAVE TWO REPORTED CONCENTRATIONS IN SUMMARY TABLES PROVIDED ON THE IT CORPORATION FIGURES. THE GREATEST OF THE TWO CONCENTRATIONS IS REPORTED ON THIS FIGURE.
  3. SAMPLES COLLECTED AT DEPTHS GREATER THAN 2' bgs ARE INDICATED ON FIGURE.
- SOURCES:
1. BASEMAP AND BORING LOCATIONS DIGITIZED FROM IT CORPORATION DRAWINGS, FIGURES 2-1 & 2-1, TITLED: "SAMPLE LOCATION MAP AND ANALYTICAL RESULTS (PART 1)", DRAWING No. 529471X1 AND "SAMPLE LOCATION MAP AND ANALYTICAL RESULTS (PART 2)", DRAWING No. 529471X2, BOTH DATED: 7/26/91 AND REVISED 11/15/91.
  2. BASEMAP AND BORING LOCATIONS FOR HISTORICAL AREAS PROVIDED BY KEMRON ENVIRONMENTAL SERVICES. KEMRON FIGURE 6-7, PROJECT No. 8122, TITLED: "LEAD DELINEATION SAMPLING AT TANK BASIN 7495 - AUGUST, 2000 AT THE TEXACO-PIRELLI SITE LOCATED IN BAYONNE, NEW JERSEY"

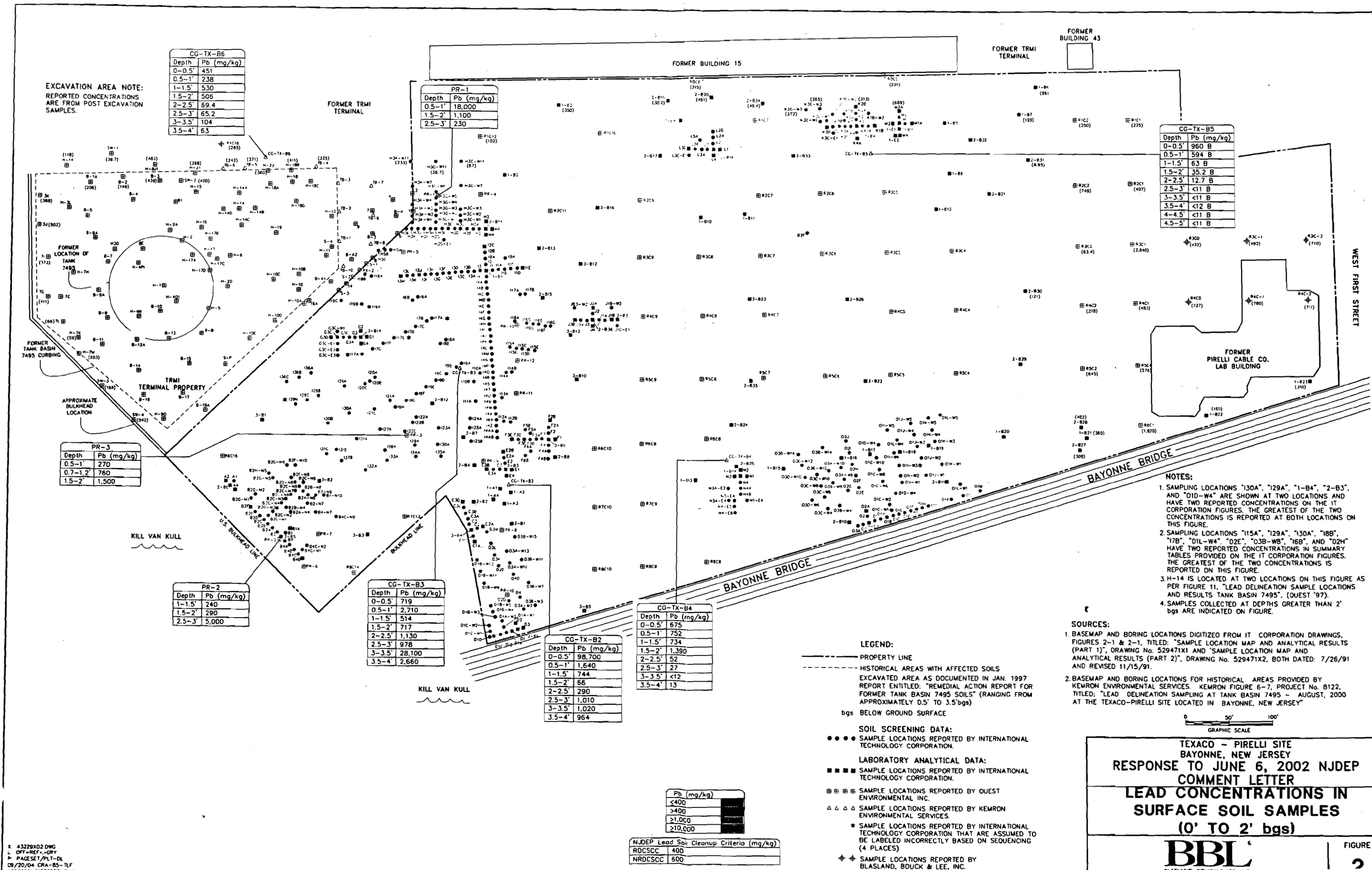
LEGEND:

- PROPERTY LINE
- - - HISTORICAL AREAS WITH AFFECTED SOILS
- EXCAVATED AREA AS DOCUMENTED IN JAN. 1997 REPORT ENTITLED: "REMEDIATION ACTION REPORT FOR FORMER TANK BASIN 7495 SOILS" (EXCAVATION DEPTH OF APPROXIMATELY 2' TO 2.5' bgs)
- bgs BELOW GROUND SURFACE
- SOIL SCREENING DATA:
  - ● ● SAMPLE LOCATIONS REPORTED BY INTERNATIONAL TECHNOLOGY CORPORATION.
- LABORATORY ANALYTICAL DATA:
  - SAMPLE LOCATIONS REPORTED BY INTERNATIONAL TECHNOLOGY CORPORATION.
  - ■ SAMPLE LOCATIONS REPORTED BY QUEST ENVIRONMENTAL INC.
  - △ △ △ SAMPLE LOCATIONS REPORTED BY KEMRON ENVIRONMENTAL SERVICES.
  - \* SAMPLE LOCATIONS REPORTED BY INTERNATIONAL TECHNOLOGY CORPORATION THAT ARE ASSUMED TO BE LABELED INCORRECTLY BASED ON SEQUENCING (4 PLACES)
  - ✦ SAMPLE LOCATIONS REPORTED BY BLASLAND, BOUCK & LEE, INC.



TEXACO - PIRELLI SITE  
BAYONNE, NEW JERSEY  
RESPONSE TO JUNE 6, 2002 NJDEP  
COMMENT LETTER  
COPPER AND ZINC CONCENTRATIONS  
IN SURFACE SOIL SAMPLES  
(0' TO 2' bgs)

**BBL**  
BLASLAND, BOUCK & LEE, INC.





SITE LOCATION

SOURCE:  
AERIAL PHOTOGRAPH SUPPLIED BY NJDEP, OFFICE OF  
INFORMATION RESOURCES MANAGEMENT, BUREAU OF GEOGRAPHIC  
INFORMATION AND ANALYSIS, 1995/1997 COLOR INFRARED DIGITAL  
IMAGERY, VOLUME 1, INDEX #52-4.

NOT TO SCALE

TEXACO - PIRELLI SITE  
BAYONNE, NEW JERSEY  
RESPONSE TO JUNE 6, 2002 NJDEP  
COMMENT LETTER

AERIAL PHOTOGRAPH OF SITE  
LOCATION

**BBL**  
BLASLAND, BOUCK & LEE, INC.

FIGURE

1

## APPENDIX C

## Appendix C

### Vertical Delineation Soil Sampling Plan Former Pirelli Cable Company Bayonne, New Jersey

#### *Introduction*

On behalf of Chevron Environmental Management Company (CEMC), Blasland, Bouck & Lee, Inc. (BBL) has prepared this sampling plan for the former Pirelli Cable Company site, located at 236 West 1<sup>st</sup> Street, Bayonne City, New Jersey. This plan has been prepared to complete vertical delineation of metals, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and total petroleum hydrocarbons (TPH) in soil at the site.

Approximately 1,000 soil samples have been collected during site investigations conducted from 1987 to 2004. Soil delineation was evaluated on a site-wide basis for each constituent of concern: lead, copper, zinc, PCBs, TPH, and PAHs. Horizontal delineation is complete on a site-wide basis based on analytical results and existing barriers along the site boundary, i.e., the bulkhead to the south and the Bayonne Bridge to the east. However, the vertical limits of the constituents of concern remain unresolved in several areas across the site. Additional soil sampling is proposed for areas where vertical delineation is not complete. Vertical delineation will be conducted on a site-wide and constituent-by-constituent basis. In addition, an evaluation of lead, copper, and zinc leachability will be completed to evaluate the potential for these constituents to impact groundwater.

#### *Proposed Sample Locations and Analyses*

One hundred and twenty-one soil samples at sixty-one locations are proposed to complete vertical delineation, as follows:

- 56 locations for lead;
- 22 locations for copper;
- 20 locations for zinc;
- 11 locations for PAHs;
- 2 locations for TPH; and
- 10 locations for PCBs.

Proposed sample locations and analyses are presented in Table C-1 and Figure C-1. The selected vertical delineation sample locations are distributed throughout the site and are biased to areas of highest previous detections above New Jersey Department of Environmental Protection (NJDEP) Residential Direct Contact Soil Cleanup Criteria (RDCSCC).

The New Jersey Technical Requirements for Site Remediation, section 7:26E-6.4(a)2, gives guidelines for the frequency of post-excavation sampling for various size excavations. Excavations with perimeters between 20 and 300 feet require one bottom sample for every 900 square feet. For larger areas, a reasonable frequency of samples may be proposed. These guidelines were used as a method of selecting an appropriate number of vertical delineation samples to be collected at potential source areas which requires further delineation. Sample locations for vertical delineation were selected at a higher frequency where higher concentrations

were previously detected including the southern and southeastern area of the site. One sample is proposed for every 1,800 to 4,000 square feet, depending on the size of the area of investigation. Locations were also chosen throughout the site to develop an understanding of soil impacts in non-source areas.

Four surface soil samples are proposed for total and Synthetic Precipitation Leaching Procedure (SPLP, USEPA Method 1312) analysis for copper, lead, zinc. The sampling locations were selected to address condition "c" in NJDEP's May 9, 2000 letter requiring SPLP analysis on samples from the locations with highest previous lead concentrations. SPLP analysis is proposed for the previous two highest screening and two highest laboratory lead concentration locations. The vertical sampling delineation analytical results will be evaluated and approximately six additional samples will be selected for SPLP (copper, lead, and zinc) analysis based on contaminant concentrations and geographical location to provide a representative site-wide understanding of potential groundwater impacts. The additional SPLP samples will be split samples from the total metals samples in the laboratory.

#### *Soil Sampling Methods*

Soil samples will be collected using a truck mounted Geoprobe® from the 6-inch interval (provided sufficient recovery) approximately two feet below the deepest previous sampling point at the locations specified above. Additional samples will be collected at greater depths at two foot intervals and held at the laboratory to be analyzed on a contingency basis until vertical delineation is complete. Soil borings will be advanced to approximately 8 feet below ground surface (bgs), unless field observations warrant additional or reduced advancement.

Soil samples will be collected using properly decontaminated or dedicated sampling equipment. Soil samples will be collected by Geoprobe® direct-push soil samplers. Samples will be collected continuously from ground surface to the desired sample depth and observations of the soil cores will be logged in a field notebook. Soil cores will be screened with a photoionization detector (PID) and readings will be logged in a field notebook. Soil will be transferred from the sampling device to the laboratory decontaminated sample containers in accordance with the NJDEP Field Sampling Procedures Manual (May 1992). Additional sample volume will be collected to ensure enough sample volume for SPLP analysis if required.

Quality assurance/quality control (QA/QC) samples for the soil sampling will include one "blind duplicate" sample per 20 field samples.

All soil samples will be placed in a cooler and cooled to approximately 4°C prior to transport to STL-Edison (NJDEP Lab Certification No. 12028) under appropriate chain-of-custody procedures. All soil sampling locations will be surveyed by a surveyor licensed in the state of New Jersey.

#### *Reporting of Results*

Once the sampling and analysis is complete, a report will be prepared. The report will discuss the sampling procedures and results and contain new and historical sample data tables and figures depicting horizontal and vertical delineation.

Upon completion and approval of delineation, CEMC will prepare a Remedial Action Work Plan for soil at the site.

**TABLE C-1**  
**PROPOSED SAMPLE LOCATIONS**  
**SOIL DELINEATION SAMPLING PLAN**  
**FORMER PIRELLI CABLE COMPANY**  
**BAYONNE, NEW JERSEY**

Sample ID	Proposed Analyses					
	Lead	Copper	Zinc	PAH	TPH	PCB
1-B9	X				X	
2-B18	X	X		X		
2-B23	X			X		X
2-B30				X		
2-B36	X		X	X		
2-B7				X		
3-B14	X*	X	X			
3-B4	X	X		X		
3-B7				X	X	
B2C	X	X	X			
B2D-N8	X					
B-6A	X					
B-15	X					
CG-TX-B2	X					
CG-TX-B3	X*	X	X			
D2D	X	X	X			
D3K	X	X	X			
F4A	X	X	X	X		
H3C	X	X				
H3G-W4	X					
H3L	X*	X	X			
H5B	X	X	X			
H-10A	X					
H-17	X					
I16F	X					
I18B	X					
I1D	X*					
I20A	X	X	X			
I27A	X					
I29C	X					
I31B	X	X				
I3B	X	X	X			
I3I	X	X				
I4I	X	X	X			
I4V	X	X	X			
I7B	X	X	X			
I9F	X	X	X			
K3B	X	X				
O1E	X		X			
O1I-W1	X					
O1J-W3	X	X				



**TABLE C-1 (CONT.)**  
**PROPOSED SAMPLE LOCATIONS**  
**SOIL DELINEATION SAMPLING PLAN**  
**TEXACO - PIRELLI**  
**BAYONNE, NEW JERSEY**

Sample ID	Proposed Analyses					
	Lead	Copper	Zinc	PAH	TPH	PCB
O1L	X		X			
O2E	X	X				
O3	X		X	X		
O3D-W12	X		X			
PR-6	X					
R1C10	X					X
R1C10-E0	X			X		X
R1C10-N0						X
R1C10-W0						X
R2C5	X		X			
R3C1	X					
R3C-2	X					
R5C2-E0	X					X
R6C1	X					
R6C10	X					X
R6C16	X					X
R6C8	X			X		X
R7C7	X					X
R8C14	X					
R8C10	X					

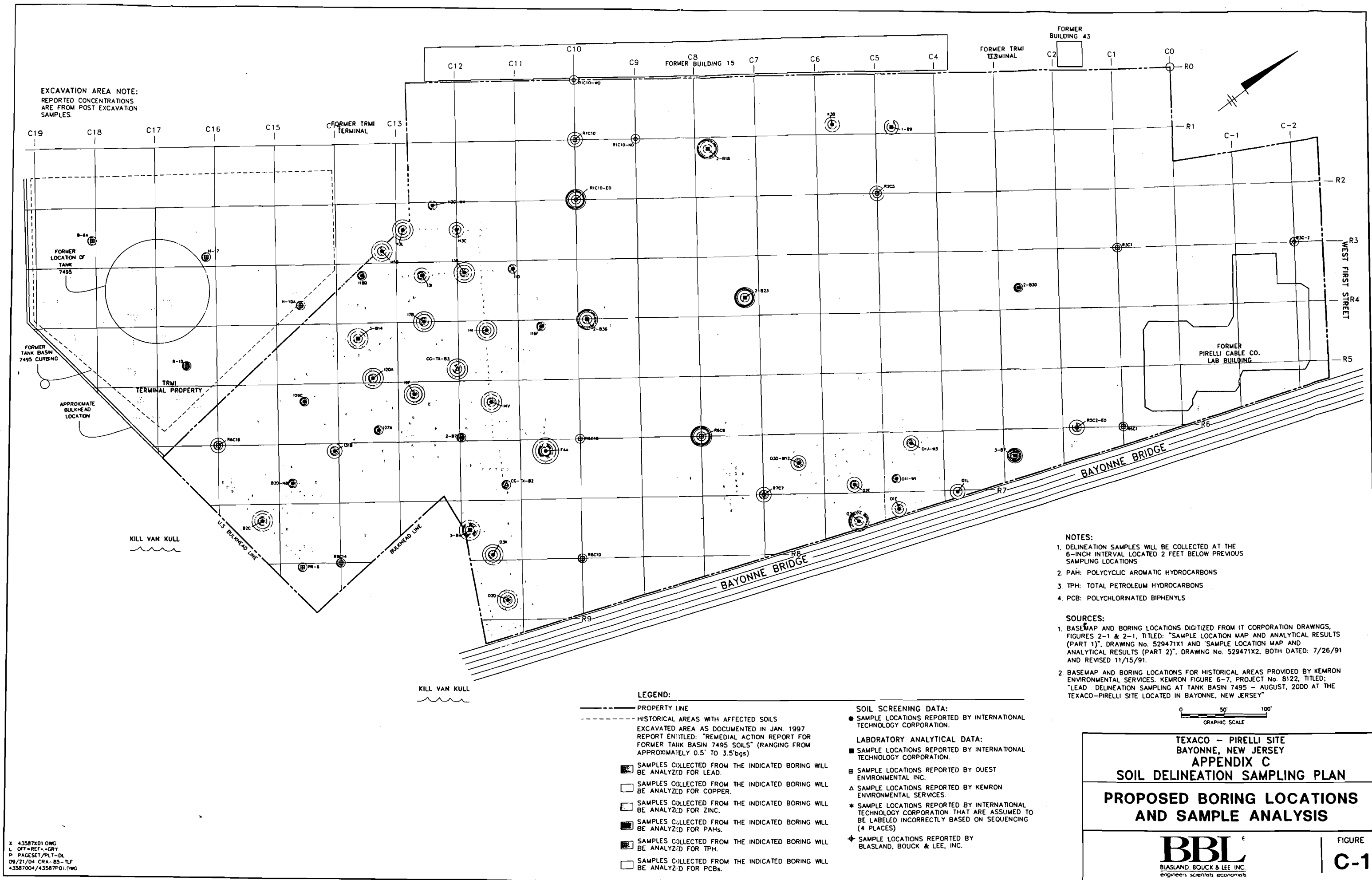
**Notes:**

PAH - Polycyclic Aromatic Hydrocarbons

PCB - Polychlorinated Biphenyls

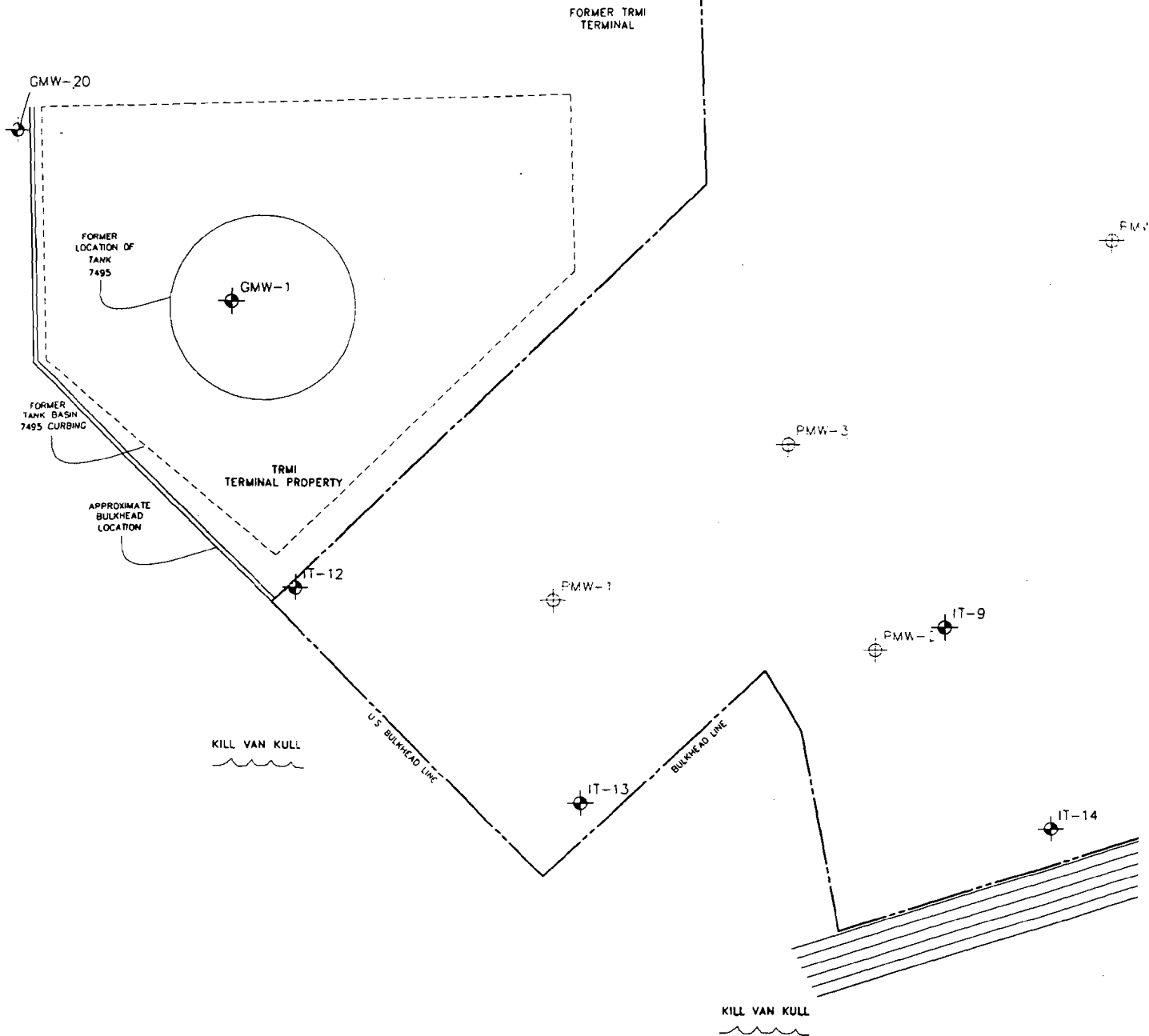
TPH - Total Petroleum Hydrocarbons

\* Synthetic Precipitation Leaching Procedure proposed in addition to total lead



## APPENDIX D

EXCAVATION AREA NOTE:  
REPORTED CONCENTRATIONS  
ARE FROM POST EXCAVATION  
SAMPLES.



## APPENDIX E

# Appendix E

ISRA Case No. E85108 and E85108-M01  
 Texaco Refining and Marketing, Inc.  
 Bayonne, New Jersey

Field Event or Submittal	Date
Quarterly Groundwater Monitoring Event	August 31, 2004
Soil Sampling Event, Former Pirelli Property	September 20, 2004
Groundwater Monitoring Well Installation Event	September 30, 2004
Submit response to NJDEP comment letter dated May 5, 2003	September 30, 2004
Submit response to NJDEP comment letter dated March 10, 2003	September 30, 2004
Submit Annual Groundwater Monitoring Report, May 2003 - May 2004	October 31, 2004
Quarterly Groundwater Monitoring Event	November 30, 2004
Submit Baseline Ecological Evaluation	December 31, 2004
Quarterly Groundwater Monitoring Event	February 28, 2005
Submit Pirelli Soil Delineation Report	January 31, 2005
Submit Remedial Action Selection Report/Remedial Action Work Plan	March 31, 2005
Quarterly Groundwater Monitoring Event	May 31, 2005
Submit Annual Groundwater Monitoring Report, May 2004 - May 2005	October 31, 2005



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[History](#)  
[Locations](#)  
[Press Room](#)  
[Customer Inquiries](#)[Home](#) > [Company](#) > [History](#)

## General Cable Historical Highlights

### Our History Brochure...

General Cable Corporation was originally incorporated in New Jersey in 1927. At that time it brought together the plant facilities and manufacturing experience of several older companies founded in the 1800s, including Phillips Wire and Safety Cable Company and Standard Underground Cable, founded by George Westinghouse.

**1844** - Supplied the insulated wire to Samuel Morse for his historic communication between Washington and Baltimore.

**1882** - Manufactured a 7-conductor line to link the U.S. Capitol with the State, War and Navy Buildings.

**1886** - Supplied wire to light the Statue of Liberty twice—first in 1886 and again for the Centennial celebration in 1986.

**1893** - Produced 145 miles of cable for installation under New York City sidewalks and a 3,000 volt cable for the first Chicago World's Fair.

**1922** - Invented Romex<sup>®</sup> Brand non-metallic sheathed cable at the company's Rome, New York, facility.

**1927** - After officially incorporating in New Jersey, the Company designed a distinctive identity by which it would be known to its many customers, suppliers, investors and associates. The trademark logo represented three lengths of cable overlaid on one another, with the words "General Cable" on each length.

**1929** - Produced the first 75,000-volt submarine cable in the United States for the Delaware River Crossing. It was manufactured in 4,050-foot lengths – the longest ever without joints.

**1935** - Supplied 100% of the cable for the power transmission line from the Hoover Dam to Los Angeles—1,626 conductor miles.

**1942** - Produced a series of wartime posters for the World War II Home-Front Campaign to build morale, to speed production and to encourage economy and conservation of critical materials, which were distributed to the armed forces, government officials and manufacturing plants involved in the war efforts.

**1943** - Manufactured 140 miles of hollow tube designed to transport 120 million gallons of diesel fuel between England and France for the D-Day invasion — Code name: "Operation Pluto." PLUTO stood for Pipe Line Under The Ocean.

**1945** - Produced 80% of the battlefield telephone wire used by the Allies and 50% of the Navy's power and communications cable.

**1961** - Produced the control and communication cable for the first group of Minutemen Missile Bases.

**1964** - Adopted a new logo to reinforce and promote the letters "GCC" as the accepted abbreviation for General Cable Corporation.

**1967** - Supplied power cable to four THUMS (Texaco, Humble, Union, Mobile and Shell) man-made offshore islands in Long Beach, California, used for drilling and pumping fluid from oil-rich wells back to the mainland.

**1969** - Selected a new type style as the new signature for General Cable with a new triad symbol modernized from the 1927 trademark. The symbol was no longer three lengths of cable, but rather suggested strands of wire being cabled together or tapes or

username:

password:

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shields being applied to cable core.

**1970** - Installed the highest underground distribution line at Pikes Peak, Colorado. Seven miles of cable buried beneath unpaved mountain roads furnishes electrical energy to three installations, including a medical research lab atop the 14,110-foot summit.

**1971** - Supplied hundreds of miles of power and communications cable to link the control facilities with the launch platforms at Cape Canaveral.

**1972** - Manufactured and installed 14 circuit miles of 230kV high-voltage underground transmission cable at the Dallas-Fort Worth International Airport.

**1976** - Developed, manufactured and installed an optical fiber cable, over one mile in length, at the U.S. Air Force's Arnold Engineering Development Center to provide a high-speed data link connecting rocket engine test sites to a central data process facility.

**1977** - Designed, developed and manufactured a 5.6 mile optical fiber cable that GTE installed in California as the world's first lightwave communications system to provide regular telephone service to the public.

**1979** - Changed the Company name to GK Technologies because "General Cable no longer described the high technology Company we are today."

**1981** - Acquired by Penn Central Corporation.

**1985** - Supplied the wire and cable to the Marsden Point Oil Refinery located at the entrance to Whangarei Harbour in Northland, New Zealand.

**1986** - Supplied wire to light the Statue of Liberty for the Centennial celebration.

**1990** - Acquired the Carol Cable Company and the industry-leading Carol® Brand cord, cordset and automotive product lines.

**1991** - Supplied medium-voltage aluminum cable and armored cable for power, control and signaling applications for the AVE high-speed railway system connecting Madrid to Seville, Spain.

**1992** - Supplied the wire and cable to build the infrastructure for the Barcelona Olympic Games and the Seville World's Fair.

**1994** - Acquired by Wassall PLC, a British Holding Company.

**1995** - Supplied all of the electrical and communications cable for the National Museum of New Zealand. Te Papa Tongarewa, located in downtown Wellington, is one of the most prominent and architecturally stunning buildings in New Zealand and one of the largest museums in the world.

**1996** - Supplied wire and cable to the Olympic Stadium for the 1996 Summer Olympic Games in Atlanta, Georgia.

**1997** - Began public trading on the New York Stock Exchange on Friday, May 16th.

**1998** - Produced a hybrid copper and fiber optic cable to provide electricity and communications to the guard station at the top of Mount Rushmore. The cable jacket was custom-designed for long-term outdoor survival in the rugged South Dakota weather and its pinkish-tan color blends in with the environment.

**1999** - Acquired BICC Energy Cables, which provided access to new markets and businesses. The Company changed its name to BICCGeneral and added Anaconda®, BICC® and Brand Rex Brands to its product line.

**2000** - Supplied on-board fiber optic cable for the ongoing requirements and maintenance of the International Space Station program.

**2000** - Resumed the worldwide use of the name General Cable

Corporation for all commercial activities.

**2001** - Completed a major Company transformation to strengthen its leadership position in the development, design, manufacture, marketing and distribution of copper, aluminum and fiber optic wire and cable products for the communications, energy, industrial and specialty markets.

**2002** - Supplied the portable power cable for the 2002 Winter Olympic games in Salt Lake City, Utah, to distribute power to environmentally friendly diesel generators used for the television coverage in remote areas where critical power was not available.

**2003** - Provided all the communications wire and cable for the Cincinnati Reds at the Great American Ball Park.

**2004** - Supplied the NextGen™ Blolite™ air blown fiber system to the National Underground Railroad Freedom Center in Cincinnati, Ohio, as the building required a cabling infrastructure to support state-of-the-art information technologies now and well into the future.

**2005** - General Cable acquired Silec, a \$250-million leading energy and industrial business in France with a global position, as well as BERU S.A., a Cuernavaca, Mexico business with a strategic location for future growth initiatives in the country's expanding automotive aftermarket.

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Phone 859 572 8000 | Fax 859 572 8458 | Email [info@generalcable.com](mailto:info@generalcable.com)

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## GENERAL CABLE NORTH AMERICAN LOCATIONS

### NORTH AMERICAN CORPORATE HEADQUARTERS

4 Tesseneer Drive  
Highland Heights, KY 41076  
Phone: 859-572-8000  
Fax: 859-572-845  
info@generalcable.com

### UNITED STATES

<b>Altoona, Pennsylvania Plant</b> 3101 Pleasant Valley Blvd. Altoona, PA 16603 Phone: 814-944-5002 Fax: 814-944-5006	<b>Indianapolis Technology Center</b> 7920 Rockville Road Indianapolis, IN 46214 Phone: 317-271-8447 Fax: 317-271-0675	<b>Manchester, New Hampshire Plant</b> 345 McGregor Street Manchester, NH 03102 Phone: 603-668-1620 Fax: 603-622-3164
<b>Chino, California Distribution Center</b> 13965 Pipeline Avenue Chino, CA 91710 Phone: 909-628-5280 Fax: 909-628-8520	<b>Jackson, Tennessee Plant</b> 19 Bobrick Drive Jackson, TN 38305 Phone: 731-422-3700 Fax: 731-423-9205	<b>Marion, Indiana Plant</b> P.O. Box 188 440 East 8th Street Marion, IN 46953 Phone: 765-664-2321 Fax: 765-668-0480
<b>DuQuoin, Illinois Plant</b> 1453 South Washington DuQuoin, IL 62832 Phone: 618-542-4761 Fax: 618-542-6626	<b>Lawrenceburg, Kentucky Plant</b> 1381 By-Pass North Lawrenceburg, KY 40342 Phone: 502-839-6983 Fax: 502-839-6289	<b>Marshall, Texas Plant</b> P.O. Box 430 US Highway 80 Scottsville, TX 75688-0430 Phone: 903-938-8151 Fax: 903-935-8261
<b>Franklin, Massachusetts Plant</b> 20 Forge Park Franklin, MA 02038 508-541-7100 Fax: 508-541-8122	<b>Lebanon, Indiana Distribution Center</b> 311 South Enterprise Blvd. Lebanon, IN 46052 Phone: 765-483-1760 Fax: 765-483-1762	<b>Marshall, Texas Tech Center</b> P.O. Box 430 US Highway 80 East Scottsville, TX 75688-0430 Phone: 903-938-8151 Fax: 903-935-8525
<b>Highland Heights, Kentucky Sales</b> 4 Tesseneer Drive Highland Heights, KY 41076 Phone: 859-572-8000 Fax: 859-572-845 info@generalcable.com	<b>Lincoln, Rhode Island Plant</b> Three Carol Drive Lincoln, RI 02865 Phone: 401-333-4848 Fax: 401-334-1040	<b>Suffern, New York Sales</b> 4 Executive Blvd. Suffern, NY 10901 Phone: 845-369-6000 Toll free: 800-237-2726 Fax: 845-369-6651
<b>Indianapolis, Indiana Plant</b> 7950 Rockville Road Indianapolis, IN 46214 Phone: 317-271-8447 Fax: 317-273-1531	<b>Malvern, Arkansas Plant</b> Highway 270 West Jones Mill, AR 72105 P.O. Box 430, Malvern, AR 72104 Phone: 501-844-4301 Fax: 501-844-4447	<b>Willimantic, Connecticut Plant</b> 1600 West Main Street Willimantic, CT 06226 Phone: 860-456-8000 Fax: 860-450-7007

BBF000002



## GENERAL CABLE NORTH AMERICAN LOCATIONS

### NORTH AMERICAN CORPORATE HEADQUARTERS

4 Tesseneer Drive  
Highland Heights, KY 41076  
Phone: 859-572-8000  
Fax: 859-572-845  
info@generalcable.com

#### MEXICO

**Cuernavaca, Mexico Plant**  
General Cable Automotriz  
9 Este No. 410 Civac-Jiutepec  
Morelos, Mexico, C.P. 62500  
Phone: +52 777 321 1593  
Fax: +52 777 320 0228

**Tetla, Mexico Plant**  
Bld. Emilio Sanchez Piedras  
#208 Cd. Ind. Xicohtencatl  
Tetla, Tlaxcala; C.P. 90431  
Mexico  
Phone: +52 241 412 7030  
Fax: +52 241 412 7148

**Mexico City, Mexico Sales**  
Av. Campos Eliseos 169  
Office 302  
Col Polanco  
Mexico City 11560  
Phone: +52 5 281 7676  
Fax: +52 5 281 7779

**Piedras Negras, Mexico Plant**  
1230 Thompson Road  
Eagle Pass, Texas 78853  
Phone: 830-773-4477  
Fax: 830-773-0499

#### CANADA

**LaMalbaie, Québec Plant**  
2600 Boul. de Comporté  
La Malbaie, QC G5A 1N4  
Canada  
Phone: 418-439-3916  
Fax: 418-439-4841

**Moose Jaw, Saskatchewan Plant**  
76 Lancaster Road  
Moose Jaw, SK S6J 1M3  
Canada  
Phone: 306-693-6400  
Fax: 306-693-9988

**St. Jerome, Quebec Plant**  
800 Ch. de la Rivière du nord  
Saint-Jérôme, QC J7Y 5G2  
Canada  
Phone: 450-436-1450  
Fax: 450-436-8416

**Toronto, Ontario Sales & Distribution Center**  
590 Barmac Drive  
Weston, ON M9L 2X8  
Canada  
Phone: 416-756-7225  
Fax: 416-756-7458

#### DOMINICAN REPUBLICAN

**Santo Domingo, Dominican Republic Sales & Distribution Center**  
Carretera Sanchez Km 11.5  
Depositos Almadom  
Apartado Postal 2731,  
Santo Domingo, Republica Dominicana  
Phone: 809.537.1059  
Fax: 809.537.1057



## GENERAL CABLE EUROPEAN LOCATIONS

### EUROPEAN HEADQUARTERS

Casanova 150  
08036 Barcelona  
Spain  
Phone: +34 93 227 9700  
Fax: +34 93 227 9722

#### ANGOLA

**Luanda, Angola Plant**  
Contact: General Cable (Cel-Cat)  
Av Marques de Pombal  
36/38 Morelena  
2715-955 Pero Pinheiro,  
Portugal  
Phone: +351 219 678 500  
Fax: +351 219 271 942

#### BRAZIL

**Vitoria, Brazil Plant & Distribution Center**  
General Cable  
Contact: General Cable  
Casanova 150  
08036 Barcelona  
Spain  
Phone: +34 93 227 9700  
Fax: +34 93 227 9722

#### FRANCE

**Montereau, France Plant**  
Silec Cables  
Rue de Varennes prolongée  
77876 Montereau Cedex  
France  
Phone: +33 1 60 57 30 00  
Fax: +33 1 60 57 30 15

#### NORWAY

**Langhus, Norway Distribution Center**  
General Cable Norge AS  
Postboks 113  
Kveldroveien 1  
Phone: +47 64 91 79 00  
Fax: +47 64 87 68 69

#### PORTUGAL

**Morelena, Portugal Plant**  
General Cable (Cel-Cat)  
Av Marques de Pombal  
36/38 Morelena  
2715-955 Pero Pinheiro,  
Portugal  
Phone: +351 219 678 500  
Fax: +351 219 271 942

#### TURKEY

**Istanbul, Turkey Plant**  
GTB Automotive  
A General Cable Joint Venture Company  
DESBAS, Istanbul Deri serbest Bolgesi  
Hasan Yelmen Cad. No: 11/1  
Tuzla  
34940 Istanbul  
Turkey  
Phone: +90 216 394 1353  
Fax: +90 216 394 1357

#### SPAIN

<b>Abrera, Spain Plant</b> Carrer del Metall, 4 (Poligon Can Sucarrats) 08630 ABRERA Barcelona Spain Phone: +34 93 773 4800 Fax: +34 93 773 4848	<b>Barcelona, Spain Sales</b> General Cable Casanova 150 08036 Barcelona Spain Phone: +34 93 227 9700 Fax: +34 93 227 9722	<b>Manlleu, Spain Plant</b> General Cable Carretera Rusiñol, 63 08560 Manlleu Barcelona Spain Phone: +34 93 852 0200 Fax: +34 93 852 0222
<b>Montcada, Spain Plant</b> General Cable Carretera de Ribas, Km. 13,250 08110 MONTCADA I REIXAC Barcelona Spain Phone: +34 93 227 9500 Fax: +34 93 227 9522		



## **GENERAL CABLE ASIA-PACIFIC LOCATIONS**

### **ASIA-PACIFIC HEADQUARTERS**

75-89 Main South Road  
P.O. Box 8044  
Riccarton  
Christchurch, New Zealand  
Phone: +64 3 348 5199  
Fax: +64 3 341 0801

### **AUSTRALIA**

**Clayton, Australia Sales**  
General Cable  
ABN 68 008 553 660  
93 Whiteside Road  
Clayton, VIC 3168  
Australia  
Phone: +61 300 363 282  
Fax: +61 300 363 382

### **CHINA**

**Shanghai, China Sales**  
General Cable  
Shanghai, China  
Contact: General Cable  
75-89 Main South Road  
P.O. Box 8044  
Riccarton  
Christchurch, New Zealand  
Phone: +64 3 348 5199  
Fax: +64 3 341 0801

### **FIJI**

**Ba, Vitu Levu, Fiji Plant**  
Dominion Wire and Cable  
A General Cable Joint Venture Company  
Main Street, Kings Road  
Ba, Republic of Fiji Islands  
Phone: 679 675 244  
Fax: 679 670 023

### **NEW ZEALAND**

**Christchurch, New Zealand Plant**  
General Cable  
75-89 Main South Road  
P.O. Box 8044  
Riccarton  
Christchurch, New Zealand  
Phone: +64 3 348 5199  
Fax: +64 3 341 0801





General Cable Corporation Energized 2004 Annual Report

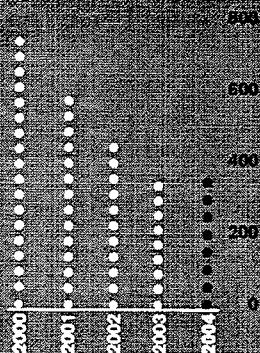
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## SELECTED FINANCIAL HIGHLIGHTS

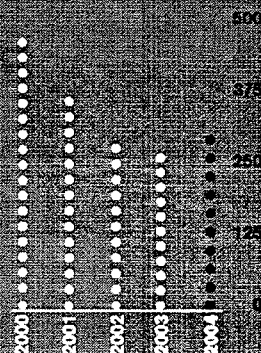
(In millions except per share data)

	2004	2003	Change
Net Sales	\$ 1,970.7	\$ 1,538.4	28%
Net Sales—Metal Adjusted	\$ 1,970.7	\$ 1,754.1	12%
Operating Income	\$ 56.5	\$ 45.7	24%
Operating Margin	2.9%	3.0%	(0.1) pts
Operating Margin—Metal Adjusted	2.9%	2.6%	0.3 pts
Income (Loss) from Continuing Operations	\$ 37.5	\$ (4.8)	
Earnings (Loss) per Common Share of Continuing Operations	\$ 0.81	\$ (0.16)	
Earnings (Loss) per Common Share of Continuing Operations—Assuming Dilution	\$ 0.75	\$ (0.16)	
Weighted Average Common Shares Outstanding	39.0	33.6	
Weighted Average Common Shares Outstanding—Assuming Dilution	50.3	33.6	

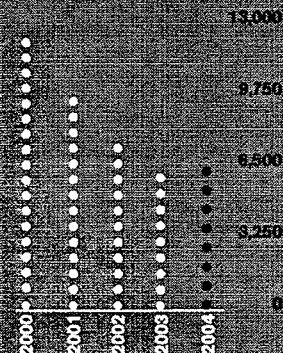
Numbers exclude results of December and December 2004 year.



**Total Debt**  
(In millions of dollars and includes Asset Backed Securitization Debt in 2003 and 2004)



**Total Inventory**  
(In millions of dollars)



**Ending Headcount**  
(Number of associates worldwide)

General Cable (NYSE: GCO) headquartered in Highland Heights, Kentucky, is a leader in the development, design, manufacturing, marketing and distribution of copper, aluminum and fiber optic wire and cable products for the energy, industrial, specialty and communications markets. The Company offers competitive strengths in such areas as breadth of product line, brand recognition, distribution and logistics, service and operating efficiency.

General Cable is committed to high ethical values, character and integrity and expects its associates, suppliers, creditors, customers and third-party service providers to maintain similar standards of behavior in their dealings with the Company.

## TO OUR SHAREHOLDERS

After several very tough years, all indicators improved simultaneously for your Company in 2004. Demand for General Cable products accelerated, we boosted capacity utilization and further increased our productivity. Our revenues and operating income increased from 2003, as did the price of our common shares and earnings per share.

### 2004 Financial Performance

Building on the recovery that began in late 2003, General Cable increased revenues 12% to \$2.0 billion on a metal-adjusted basis. All product segments and markets improved.

International demand, which accounts for 35% of worldwide revenues, was up 23% on a metal-adjusted basis. Although exchange rates helped us by 3%, we were very pleased to see broad-based growth in volume.

- In our Asia-Pacific region, revenues increased 7% on a metal-adjusted basis. General Cable is now recognized as a leader throughout the Pacific Islands, Australia and New Zealand, and is now touching Southeast Asia.
- In Europe, we enjoyed the benefits of our early movement into high-performance zero halogen cabling as Spain fully adopted standards for these cables during the year. We also continued to build our customer base among home centers, as well as utilities throughout Western Europe. At the same time, our operations in Portugal improved substantially as we achieved meaningful synergies with our Spanish-based business.

- In Africa and South America, General Cable's small but growing operations posted higher sales on the heels of an improved Angolan economy and increased spending on the electrical grid in Brazil.

After several years of decline, North American revenues improved sharply, increasing 7% on a metal-adjusted basis. We remained focused on our three key segments—energy, industrial and specialty, and communications.

- Electric utilities began to invest in infrastructure again, reflecting healthier balance sheets, a return to core activities and a more favorable regulatory environment at the local level.
- Industrial and infrastructure spending also advanced, signaling the reversal of an estimated 70% peak-to-trough decline in the last cycle, which topped out in the mid-1990s, then bottomed in 2002 and remained there through 2003.
- Communications end-markets continued to languish. Demand from telecommunication companies moved sideways, and spending on Local Area Network cabling upgrades remained lackluster. Nevertheless, we grew our communications segment 7% on a metal-adjusted basis as a number of competitors exited a very difficult market.
- A strong sales and product development focus on niche segments such as electronics, automotive aftermarket and flexible cables and harnesses also drove our business, as did a strong contribution from Canada.

Although adjusted earnings per share nearly doubled and our stock price appreciated 70%, we were unable to fully capture all the benefits of recovering volumes in our markets and continuing productivity in our operations. In North America, operating margins were 25% to 33% of the results we obtained in the last peak and less than 50% of the level we are achieving internationally. Costs for aluminum and copper conductor, insulating compounds, steel, reels and transportation soared nearly \$300 million during the year. The effects of inflation were particularly acute in North America. Our ability to offset sharply rising prices on a timely basis lagged, but clearly improved as the year progressed.

## Operational Highlights

Our financial results demonstrate the power of General Cable's business model and ability to execute in a demanding market. They also reflect our success in further strengthening our foundation and extending our reach.

### FORMED STRATEGIC ALLIANCES.

We partnered with Panduit, a world leader in network and electrical connectivity solutions, and introduced PanGen Structured Cabling Solutions, which will meet diverse network infrastructure requirements. This partnership doubles our served market, giving General Cable direct access to both the closed and open architecture segments of the Local Area Networking business.

We also strengthened our utility product offering by entering into an agreement with Composite Technology Corporation to act as its exclusive manufacturer of innovative aerial high-density energy transmission cables in the United States and Canada.

Additionally, we formed an alliance with Kerpen, a German manufacturer and worldwide leader of instrumentation cables. This relationship will create new opportunities for joint business development of petrochemical projects.

We also entered into a number of significant private label agreements with wire and cable manufacturers. These arrangements leverage our core skills and improve return on capital employed.

### INTENSIFIED OUR DRIVE TO BE THE LOW COST PROVIDER.

We continued to invest in Lean Six Sigma programs. We now have 50 Blackbelts and 148 Greenbelts trained in North America. Their skills and diligence helped deliver net productivity of \$23 million, improve total inventory turns by 0.2 to 5.6 turns, lower quality defects 53% and reduce gross scrap rates 30 basis points.

We accelerated expansion of Lean Six Sigma programs globally and already are seeing improved throughput and total quality in Europe. In 2005, we expect further benefits from this ongoing work in Europe, as well as in the Asia-Pacific region, where Lean Six Sigma is just getting underway.

Additionally, in our industrial and specialty cable business, we successfully completed the plant rationalization work we started during the fourth quarter of 2003. We achieved our targeted savings at substantially less cost than budgeted.

**IMPROVED OUR ALREADY EXEMPLARY WORKPLACE.**

Our North American operations team delivered an OSHA recordable incident rate of 2.2, an 18% improvement over 2003 and 33% of the most recently published industry average. The OSHA Recordable Incident Rate is a key safety performance measure, and our outstanding results show our commitment to manufacturing excellence not only focuses on cost reduction, but also includes ensuring a safe and accident-free working environment for our associates.

**BROUGHT ADDITIONAL PERSPECTIVE TO THE BOARD.**

During the fourth quarter 2004, we announced the retirement of Jeffrey Noddle from the General Cable Board of Directors. That move followed the addition of Craig Omtvedt to the Board in August. Craig, Chief Financial Officer of Fortune Brands, already has built a strong understanding of our markets and business model. As chairman of our audit committee, he will play an important role in the implementation of best practices across our finance and accounting functions, as well as in developing our global finance team.

## On The Horizon

In 2005, we will remain focused on receiving fair value for our products and services, improving return on invested capital and expanding our geographic footprint. We continue to see the potential for strong operating leverage, particularly in North America. In addition, we intend to build on our franchises in product areas that we expect will grow at a faster rate than the market average.

- We believe the energy segment represents our greatest long-term growth prospects—from exploration and production to transmission and distribution. We will continue to pursue strategic opportunities to broaden our presence worldwide, as well as build specific capabilities in extra high-voltage systems.

- We have identified a number of global opportunities in specialty products such as electronic and automotive aftermarket cables and will pursue those that bring value to our shareholders.
- We will continue to build our overall market presence in developing countries, leveraging our brands, technology and operating systems.
- We will make significant headway in the turnaround and eventual market leadership of our North American data and industrial businesses.
- Inflationary pressure continues unabated. Our objective remains the immediate pass-through of these accelerating costs wherever possible.

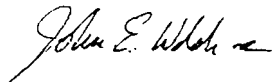
## Energized

General Cable, a global company, is emerging as one of the strongest leaders in a reinvigorated industry. Important strategic decisions undertaken a number of years ago—including our One Company customer and supplier focus, integrated IT systems, product and geographic diversity and an investment in a culture of continuous improvement—have positioned us to benefit from the recovery that is well underway.

As we enter a new year and face new challenges, we want to thank our loyal customers, dedicated associates and experienced management team for their continuing support, bold dreams and clear vision of an even brighter future.



**GREGORY B. KENNY**  
President and Chief Executive Officer



**JOHN E. WELSH, III**  
Nonexecutive Chairman

## BOARD OF DIRECTORS



**Gregory B. Kenny**  
President and  
Chief Executive Officer,  
General Cable Corporation



**John E. Welsh, III**  
Nonexecutive Chairman,  
General Cable Corporation  
President,  
Avalon Capital Partners LLC



**Gregory E. Lawton**  
President and  
Chief Executive Officer,  
JohnsonDiversey, Inc.



**Craig P. Omtvedt**  
Senior Vice President and  
Chief Financial Officer,  
Fortune Brands, Inc.



**Robert L. Smialek**  
Former President and  
Chief Executive Officer,  
Applied Innovation Inc.



## Energy Cables

General Cable is a \$706 million source of energy cables for power generation, transmission and distribution worldwide and the largest energy products supplier in North America.

### Bare Overhead High-Voltage Transmission and Distribution Cables

Our BICC Brand cables satisfy the varied and specialized demands of the electrical utility marketplace. Our TransPowr bare aluminum overhead cables and PowrMax insulated high-voltage cables for buried applications are available in numerous combinations of aluminum and steel strands and layers. Our new aerial high-density transmission cables feature innovative composite core construction.

### Low- and Medium-Voltage Distribution Cables

General Cable's extensive line of BICC Brand PowrServ and EmPowr copper and aluminum cables serve the total distribution needs of electrical utilities, rural electrical co-ops and the public power market for both traditional and renewable energy resources.

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## Industrial & Specialty Cables

General Cable is a \$734 million global manufacturer of application-specific power and control cable products and the company with the broadest range in the business.

### Automotive Products

From ignition wire sets and single leads to bulk ignition wire, primary wire and battery starter cable, General Cable is the answer for the automotive aftermarket and OEMs worldwide.

### Cord Products

Carol Brand is the most recognized name in flexible cords. The extensive line includes portable cord, cordsets, portable power cable and premium grade cable for commercial and industrial applications. Both our Carol and premier Anaconda Brand cables are built for rugged uses such as mining, welding and diesel locomotives.

### Instrumentation, Power and Control Cables

Our Brand Rex and BICC Brand cables serve the factory automation, transit, marine, oil rig, petrochemical and military markets. We manufacture instrumentation tray cables and automation cables for standard, specialized and custom applications. When uptime, reliability and performance are essential, customers count on our power cables—from low-voltage single conductor to medium-voltage armored or unarmored.

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## Communications Cables

General Cable is a \$531 million global supplier of communications cables and a major resource for high bandwidth voice, data and video applications.

### Data Communications Cables

Our products are on the job wherever enhanced performance is critical—from Gigabit Ethernet, token ring and broadband applications to patch panels, communications closets and plenum applications. We offer one of the most comprehensive lines of enhanced high-speed Category products—GenSPEED—and our new PanGen Structured Cabling Solutions to meet diverse network infrastructure requirements.

### Electronics Cables

Our Carol Brand products fulfill the complete wire and cable requirements of the fast-changing electronics, sound and security marketplaces. We offer hookup wire; communications cable; computer, coaxial and microphone cables; and special designs for security systems, fire alarms, and audio, video and digital broadcasts.

### Fiber Optic Cables

We provide a full menu of NextGen Brand fiber optic cables for data communications and voice and video networks. Our products range from tight buffer and armored products for military applications to loose tube and hybrid cables for communications networks. We also offer advanced Blolite blown fiber systems for Local Area Networks and campus applications.

### Telecommunications Cables

Our broad range of industry-standard outside plant wire and cable products ensures reliable, cost-effective performance. We provide air core, filled core and specialty wire products for aerial, buried and duct applications.

### Wire Harnesses and Assemblies

We supply custom-designed cable, harnesses and assemblies for a wide variety of OEM applications, including business machines, material handling equipment, factory automation and medical equipment.

GENERAL CABLE, ANACONDA BRAND, BICC BRAND, CAROL BRAND, EMPOWR, GENSPED, NEXTGEN BRAND, PANGEN, POWRMAX, POWRSERV, THE POWER OF ONE and TRANSPWR are trademarks or service marks of General Cable Technologies Corporation. BRAND REX is a trademark of General Cable Corporation and used under license. BLOLITE is a trademark of Novar plc and is used under license.

**General Cable products help illuminate the world, inspire progress and open lines of communication.**

**We are energized with the power of our products, systems and people—all focused on one goal, one promise: fulfilling our customers' needs. We are the one source customers can count on for energy, industrial and specialty, and communications cables. We call this The Power of One.**

**The Power of One means one culture, embodied by one team wholly committed to the highest level of customer satisfaction. Every day, 6,300 General Cable associates in nine countries serve our valued customers worldwide.**

GENERAL CABLE CORPORATION  
FORM 10K

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**SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

**FORM 10-K**

**Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the Fiscal Year Ended December 31, 2004  
Commission File No. 1-12983

**GENERAL CABLE CORPORATION**

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation or organization)

06-1398235  
(I.R.S. Employer Identification No.)

4 Tesseneer Drive  
Highland Heights, KY 41076-9753  
(Address of principal executive offices)

(859) 572-8000  
(Registrant's telephone number, including area code)

**Securities Registered Pursuant to Section 12(b) of the Act:**

Title of Each Class

Common Stock, \$.01 Par Value

Name of Each Exchange on which registered

New York Stock Exchange

**Securities Registered Pursuant to Section 12(g) of the Act: None**

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months, and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of the Regulation S-K is not contained herein, and need not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this form 10-K or any amendment to the Form 10-K. [X]

Indicate by check mark whether the registrant is an accelerated filer (as defined in Exchange Act Rule 12b-2).

Yes ☒ No ☐

The aggregate market value of the Registrant's Common Stock held by non-affiliates was \$329.3 million at June 30, 2004 (based upon non-affiliate holdings of 38,519,941 shares and a market price of \$8.55 per share).

At March 15, 2005, there were 39,408,419 shares of the Registrant's Common Stock outstanding.

**Documents Incorporated by Reference:**

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**GENERAL CABLE CORPORATION  
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ON FORM 10-K**

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## PART I.

### Item 1. Business

General Cable Corporation (the Company) is a leading global developer and manufacturer in the wire and cable industry. The Company's operations are divided into three main segments: energy, industrial & specialty and communications. Energy cable products include low-, medium- and high-voltage power distribution and power transmission products for overhead and buried applications. Industrial & specialty wire and cable products conduct electrical current for industrial, OEM, commercial and residential power and control applications. Communications wire and cable products transmit low-voltage signals for voice, data, video and control applications. The Company has a leading market position in each of the segments in which it competes due to product, geographic and customer diversity and the Company's ability to operate as a low cost provider. The Company sells a wide variety of copper, aluminum and fiber optic wire and cable products, which it believes represents the most diversified product line of any U.S. manufacturer. As a result, the Company is able to offer its customers a single source for most of their wire and cable requirements. The Company manufactures its product lines in 26 facilities and sells its products worldwide through its operations in North America, Europe and Oceania. Technical expertise and implementation of Lean Six Sigma strategies have contributed to the Company's ability to maintain its position as a low cost provider.

The Company is a Delaware corporation and was incorporated in April 1994. Its principal executive offices are located at 4 Tesseneer Drive, Highland Heights, Kentucky 41076-9753 and its telephone number is (859) 572-8000. The Company's internet address is [www.generalcable.com](http://www.generalcable.com). General Cable's annual report on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, are made available free of charge at [www.generalcable.com](http://www.generalcable.com) as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (SEC). In addition, the Company will provide, at no cost, paper or electronic copies of our reports and other filings made with the SEC. Requests should be directed to: Investor Relations, General Cable Corporation, 4 Tesseneer Drive, Highland Heights, KY 41076-9753.

The information on the website listed above is not and should not be considered part of this annual report on Form 10-K and is not incorporated by reference in this document. This website address is and is only intended to be an inactive textual reference.

The Company and its predecessors have served various wire and cable markets for over 150 years. The Company's immediate predecessor was a unit of American Premier Underwriters, Inc. (American Premier), previously known as The Penn Central Corporation. American Premier acquired the Company's existing wire and cable business in 1981 and significantly expanded the business between 1988 and 1991 by acquiring Carol Cable Company, Inc. and other wire and cable businesses and facilities. In June 1994, a subsidiary of Wassall PLC acquired the Predecessor by purchase of General Cable's outstanding subordinated promissory note, the General Cable common stock held by American Premier and a tender offer for the publicly-held General Cable common stock. Between May and August 1997, Wassall consummated public offerings for the sale of all of its interest in General Cable's common stock. The Company has operated as an independent public company since completion of the offerings.

### Products and Markets

Financial information for each of the Company's three main operating segments is summarized below, in millions of dollars:

	Year Ended December 31,					
	2004		2003		2002	
	Amount	%	Amount	%	Amount	%
<b>Net sales:</b>						
Energy	\$ 705.7	36%	\$ 560.2	37%	\$ 516.0	36%
Industrial & specialty	734.3	37%	542.4	35%	499.4	34%
Communications	530.7	27%	435.8	28%	438.5	30%
Total net sales	<u>\$1,970.7</u>	<u>100%</u>	<u>\$1,538.4</u>	<u>100%</u>	<u>\$1,453.9</u>	<u>100%</u>
<b>Operating income (loss):</b>						
Energy	\$39.8	57%	\$38.0	71%	\$36.9	75%
Industrial & specialty	23.0	33%	9.9	18%	9.7	20%
Communications	6.6	10%	6.0	11%	2.5	5%
Subtotal	<u>69.4</u>	<u>100%</u>	<u>53.9</u>	<u>100%</u>	<u>49.1</u>	<u>100%</u>

Corporate and other operating items	<u>(12.9)</u>	<u>(8.2)</u>	<u>(33.4)</u>
Total operating income	<u>\$56.5</u>	<u>\$45.7</u>	<u>\$15.7</u>

	December 31,	
	2004	2003
<b>Total assets:</b>		
Energy	\$ 342.9	\$ 269.5
Industrial & specialty	401.0	325.1
Communications	333.5	302.9
Corporate	143.4	152.0
Total assets	<u>\$1,220.8</u>	<u>\$1,049.5</u>

The principal products, markets, distribution channels and end-users of each of the Company's product categories are summarized below:

Product Category	Principal Products	Principal Markets	Principal End-Users
<b>Energy</b>			
Utility	Low-Voltage, Medium-Voltage Distribution; Bare Overhead Conductor; High-Voltage Transmission Cable	Power Utility	Investor-Owned Utility Companies; State and Local Public Power Companies; Rural Electric Associations; Contractors
<b>Industrial &amp; Specialty</b>			
Instrumentation, Power, Control and Specialty	Rubber and Plastic-Jacketed Wire and Cable; Power and Industrial Cable; Instrumentation and Control Cable	Industrial Power and Control; Utility/Marine/Transit; Military; Mining; Oil and Gas; Industrial; Power Generation; Infrastructure; Residential Construction	Industrial Consumers; Contractors; OEMs; Military Customers; Telecommunication System Operators
Automotive	Ignition Wire Sets	Automotive Aftermarket	Consumers
<b>Communications</b>			
Outside Voice and Data (Telecommunications)	Outside Plant Telecommunications Exchange Cable; Outside Service Wire	Telecom Local Loop	Telecommunications System Operators
Data Communications	Multi-Conductor/Multi-Pair; Fiber Optic; Shipboard; Military Fiber Cable	Computer Networking and Multimedia Applications	Contractors; OEMs; Systems Integrators; Systems Operators; Military Customers
Electronics	Multi-Conductor; Coaxial; Sound, Security/Fire Alarm Cable	Building Management; Entertainment; Equipment Control	Contractors; Consumers
Assemblies	Cable Harnesses; Connector Cable	Telecommunications; Industrial Equipment; Medical Equipment	Communications and Industrial Equipment Manufacturers

The Company operates its businesses globally, with 66% of net sales in 2004 generated from North American operations and 34% generated from International operations.

### Industry and Market Overview

In North America, General Cable has been operating for some time in a difficult business environment. The wire and cable industry is competitive, mature and cost driven. In many business segments, there is little differentiation among industry participants from a manufacturing or technology standpoint. During 2004, the Company's end markets have shown signs of recovery. There has been significant merger and acquisition activity which, we believe, may lead to a reduction in the

deployment of inefficient, high cost capacity in the industry. Wire and cable products are relatively low value added, higher weight (and therefore relatively expensive to transport) and often subject to regional or country specifications. The wire and cable industry is raw materials intensive with copper and aluminum comprising the major cost components for cable products. Changes in the cost of copper and aluminum are generally passed through to the customer, although there can be timing delays of varying lengths depending on the volatility in metal prices, the type of product, competitive conditions and particular customer arrangements.

### ***Energy***

The energy market consists of low-, medium- and high-voltage power distribution and power transmission products for overhead and buried applications. Growth in this market will be largely dependent on investment policy of electric utilities and infrastructure improvement. The Company believes that the increase in electricity consumption in North America has outpaced the rate of utility investment in power cables. As a result, the Company believes the average age of power transmission cables has increased, the current electric transmission infrastructure needs to be upgraded and the transmission grid is near capacity. In addition, the 2003 power outages in the U.S., Canada and Europe emphasized the need to upgrade the power transmission infrastructure used by electric utilities, which may, over time, cause an increase in demand for the Company's energy products. In addition, tax legislation was recently passed in the United States which includes the renewal of tax credits for producing power from wind. This may also cause an increase in demand for the Company's products as the Company is a significant manufacturer of wire and cable used in wind farms.

The Company is a leader in the supply of energy cables to the North America electric utility industry. The business manufactures low- and medium-voltage aluminum and copper distribution cable, bare overhead aluminum conductor and high-voltage transmission cable. Bare transmission cables are utilized by utilities in the transmission grid to provide electric power from the power generating stations to the distribution sub-stations. Medium-voltage energy cables are utilized in the primary distribution infrastructure to bring the power from the distribution sub-stations to the transformers. Low-voltage energy cables are utilized in the secondary distribution infrastructure to take the power from the transformers to the end-user's meter.

The Company's North American energy cables business has strategic alliances in the United States and Canada with a number of major customers and is strengthening its position through these agreements. This business utilizes a network of direct sales and authorized distributors to supply low- and medium-voltage and bare overhead cable products. This market is represented by approximately 3,500 utility companies.

The Company anticipates that sales volume for North American customers should improve over time as utility customers address capital projects that were previously deferred, including enhancements to the power transmission and distribution grid. There is proposed energy legislation in the United States which would provide future regulatory relief and allow North American utility companies to earn an adequate rate of return on their investment in upgrading the transmission grid infrastructure. In addition, certain other proposed legislation in the United States, if passed, will permit accelerated depreciation on transmission grids, certain tax credits and bonus depreciation on new equipment which could create an increased demand for the Company's products.

A majority of the Company's North America energy market customers have entered into written agreements with the Company for the purchase of wire and cable products. These agreements typically have 2-4 year terms and provide adjustments to selling prices to reflect fluctuations in the cost of raw materials. These agreements do not guarantee a minimum level of sales. Historically, approximately 70% of our North America energy business revenues are under contract prior to the start of each year.

The Company's European energy cables business is headquartered in Barcelona, Spain and is a strong regional wire and cable manufacturer in Europe. The business utilizes its broad product offering and its low cost manufacturing platform to gain market share. The business has also benefited from its competitors ongoing withdrawal of medium-voltage cable manufacturing capacity from the European market and from the trend in Europe to install power cables underground, which requires more highly engineered cables.

### ***Industrial & Specialty***

The industrial & specialty market consists of wire and cable products that conduct electrical current for industrial, OEM, commercial and residential power and control applications. The principal product categories in this market are portable cord, industrial cables and automotive products.

The global market for industrial & specialty cable products has many niches. Sales in North America have declined in recent years as the result of a substantial decline in industrial construction spending from mid-1990 peak levels. However the Company has seen strengthening demand in 2004 which may indicate a turnaround in industrial construction spending in



North America. This segment has also experienced increased demand for cables utilized in industrial repairs and maintenance and the automotive aftermarket. Growth in the industrial & specialty markets will be largely dependent upon new industrial construction, investment in capital equipment and vehicle after-market maintenance spending.

Many industrial and commercial wire and cable applications require cables with exterior armor and/or jacketing materials that can endure exposure to chemicals, extreme temperatures and outside elements. The Company offers products that are specifically designed for these applications.

*Portable Cord and Specialty Cables.* The Company manufactures and sells a wide variety of rubber and plastic insulated portable cord products for power and control applications serving industrial, mining, entertainment, OEM, farming and other markets. Portable cord products are used for the distribution of electrical power, but are designed and constructed to be used in dynamic and severe environmental conditions where a flexible but durable power supply is required. Portable cord products include both standard commercial cord and cord products designed to meet customer specifications. Portable rubber-jacketed power cord, the Company's largest selling cord product line, is typically manufactured without a connection device at either end and is sold in standard and customer-specified lengths. Portable cord is also sold to OEMs for use as power cords on their products and in other applications, in which case the cord is made to the OEMs' specifications. The Company also manufactures portable cord for use with moveable heavy equipment and machinery. The Company's portable cord products are sold primarily through electrical distributors and electrical retailers to industrial customers, OEMs, contractors and consumers.

The Company's portable cords are used in the installation of new industrial equipment and the maintenance of existing equipment, and to supply electrical power at temporary venues such as festivals, sporting events, concerts and construction sites. The Company expects demand for portable cord to be influenced by general economic activity.

The Company's industrial & specialty products sold under the "Brand Rex" name include low-voltage and data transmission cables, rail and mass transit cables, shipboard cables, off-shore cables, other industrial cables and cables that meet low-smoke, zero-halogen requirements in Europe. Primary uses for these products include various applications within power generating stations, marine, oil and gas, transit/locomotive, OEMs, machine builders, medical imaging, shipboard, aerospace industries, space flight and aircraft markets. Shipboard cables sold by the Company hold a leading position with the U.S. Navy. The Company's "Polyrad XT" marine wire and cable products also provide superior properties and performance levels that are necessary for heavy-duty industrial applications to both onshore and offshore platforms, ships and oil rigs.

Industrial cable products include medium and low voltage power, control and instrumentation cable, armored power cable, flexible control cables, festoon cables, robotic cables and industrial data communications cables. These products have various applications in power generating stations and substations, process control, mining, material handling, machine tool and robotics markets.

*Automotive Products.* The Company's principal automotive product is ignition wire sets for sale to the automotive aftermarket. The Company sells its automotive ignition wire sets primarily to automotive parts retailers and distributors, hardware and home center retail chains and hardware distributors. The Company's automotive products are also sold on a private label basis to retailers and other automotive parts manufacturers.

### ***Communications***

The communications market consists of wire and cable products that transmit low-voltage signals for voice, data, video and control applications. The principal product categories are:

- outside voice and data products — wire and cable products for voice, data and video transmission applications;
- data communication products — high-bandwidth twisted copper and fiber optic cables and multiconductor cables for customer premises, local area networks and telephone company central offices;
- electronics — specialty products for use in machinery and instrumentation interconnection, audio, computer, security and other applications; and
- OEM products — harnesses and assemblies for telecommunication, industrial and medical equipment manufacturers.

In recent years, sales of communications wire and cable products have decreased, primarily the result of a significant decline from historic spending levels for outside plant telecommunications cables and a weak market for switching/local area networking cables. The industry has benefited from the consolidation of competitors during 2004. Growth in this market will be largely dependent upon the level of information technology spending on network infrastructure and capital spending by the regional bell operating companies, or RBOCs, on maintenance, repair and expansion of their copper cable infrastructure. The Company anticipates, based on recent regulatory announcements, further deployment of fiber optic products into the telephone network. Increased spending by the telephone companies on fiber deployment may negatively impact their purchases of the Company's copper based telecommunications cable products. However, this impact may be somewhat

mitigated in that the Company believes it will benefit from the further investment in fiber broadband networks as its customers will most likely need to upgrade a portion of their copper network to support the fiber network.

*Outside Voice and Data Products.* The Company's principal outside voice and data products are outside plant telecommunications exchange cable and service wire. Outside plant telecommunications exchange cable is short haul trunk, feeder or distribution cable from a telephone company's central office to the subscriber premises. It consists of multiple paired conductors (ranging from 2 pairs to 4,200 pairs) and various types of sheathing, water-proofing, foil wraps and metal jacketing. Service wire is used to connect telephone subscriber premises to curbside distribution cable.

The Company sells its outside voice and data products primarily to telecommunications system operators through its direct sales force under supply contracts of varying lengths, and also to telecommunications distributors. The contracts do not guarantee a minimum level of sales. Product prices are generally subject to periodic adjustment based upon changes in the cost of copper and other factors.

*Data Communications Products.* Data communications products are high-bandwidth twisted pair copper and fiber optic cable for the customer premise, local area networks, central office and OEM telecommunications equipment markets. Customer premise products are used for wiring at subscriber premises, and include computer, riser rated and plenum rated wire and cable. Riser cable runs between floors and plenum cable runs in air spaces, primarily above ceilings in non-residential structures. Local area network cables run between computers along horizontal raceways and in backbones between servers. Central office products interconnect components within central office switching systems and public branch exchanges. The Company sells data communications products primarily to distributors through agents and a direct sales force. The market for data communications products has been adversely affected by a decrease in information technology spending. However, this decrease has been partially offset by continued spending in this market on maintenance and repair.

*Electronics.* Electronics products include multi-conductor, multi-pair, coaxial, hook-up, audio and microphone cables, speaker and television lead wire, and high temperature and shielded electronic wire. Primary uses for these products are various applications within the commercial, industrial instrumentation and control, and residential markets. These markets require a broad range of multi-conductor products for applications involving programmable controllers, robotics, process control and computer integrated manufacturing, sensors and test equipment, as well as cable for fire alarm, smoke detection, sprinkler control, entertainment and security systems.

*OEM Products.* Assemblies are used in communications switching systems and industrial control applications as well as medical equipment applications. These assemblies are used in such products as data processing equipment; telecommunications network switches, diagnostic imaging equipment, office machines and industrial machinery. The Company's industrial instrumentation and control products are sold primarily through distributors and agents.

## Geographic Groups

General Cable analyzes its worldwide operations in two geographic groups: 1) North America and 2) International. The following table sets forth net sales and operating income by geographic group for the periods presented, in millions of dollars:

	Fiscal Year Ended December 31,					
	2004		2003		2002	
	Amount	%	Amount	%	Amount	%
<b>Net sales:</b>						
North America	\$1,300.6	66%	\$1,074.2	70%	\$1,077.2	74%
International	670.1	34%	464.2	30%	376.7	26%
Total net sales	<u>\$1,970.7</u>	<u>100%</u>	<u>\$1,538.4</u>	<u>100%</u>	<u>\$1,453.9</u>	<u>100%</u>
<b>Operating income (loss):</b>						
North America	\$ 17.1	25%	\$ 5.6	10%	\$ 15.0	31%
International	52.3	75%	48.3	90%	34.1	69%
Subtotal	<u>69.4</u>	<u>100%</u>	<u>53.9</u>	<u>100%</u>	<u>49.1</u>	<u>100%</u>
Corporate charges	<u>(12.9)</u>		<u>(8.2)</u>		<u>(33.4)</u>	
Total operating income	<u>\$ 56.5</u>		<u>\$ 45.7</u>		<u>\$ 15.7</u>	
<b>Total long-lived assets:</b>						
	2004		2003		December 31,	
North America	\$213.4		\$219.0			
International	142.6		114.3			

Total long-lived assets

\$356.0

\$333.3

The Company believes that it is the largest participant in the North American market. The Company's European business is headquartered in Barcelona, Spain, and has three manufacturing facilities in the Barcelona area, a manufacturing facility near Lisbon, Portugal and a plant in Brazil, all of which are supported by centralized marketing, sales and production planning. The main markets served are Spain, Portugal, France, United Kingdom, Norway, Belgium and Brazil, with approximately 90% of sales generated in the European market and the remaining 10% representing export sales. Over 90% of net sales in Europe and Oceania are derived from energy and industrial and specialty cable sales. The Company's Oceania business consists of a regional headquarters and manufacturing facility in Christchurch, New Zealand, a joint venture manufacturing facility in Fiji and sales offices in New Zealand and Australia. The business offers a broad product range in the energy, communications and electrical markets principally serving New Zealand, Australia, Fiji, and the Pacific Islands with certain products also sold into Asia.

### **Competition**

The markets for all of the Company's products are highly competitive, and the Company experiences competition from several competitors within each market. The Company believes that it has developed strong customer relations as a result of its ability to supply customer needs across a broad range of products, its commitment to quality control and continuous improvement, its continuing investment in information technology, its emphasis on customer service, and its substantial product and distribution resources.

Although the primary competitive factors for the Company's products vary somewhat across the different product categories, the principal factors influencing competition are generally breadth of product line, inventory availability and delivery time, price, quality and customer service. Many of the Company's products are made to industry specifications, and are therefore essentially functionally interchangeable with those of competitors. However, the Company believes that significant opportunities exist to differentiate all of its products on the basis of quality, consistent availability, conformance to manufacturer's specifications and customer service. Within some markets such as specialty and LAN cables, conformance to manufacturer's specifications and technological superiority are also important competitive factors. Brand recognition is also a primary differentiating factor in the portable cord market and, to a lesser extent, in other product groups.

### **Raw Materials**

The principal raw material used by General Cable in the manufacture of its wire and cable products is copper. The Company purchases copper from a number of major domestic and foreign producers, generally through annual supply contracts. Copper is available from many sources, and the Company believes that it is not dependent on any single supplier of copper. In 2004, the Company's largest supplier of copper accounted for approximately 48% of its North American copper purchases.

In North America, the Company has centralized the purchasing of its copper, and aluminum, another significant raw material, to capitalize on economies of scale and to facilitate the negotiation of favorable purchase terms from suppliers. The price of copper and aluminum has historically been subject to considerable volatility. The Company generally passes changes in copper and aluminum prices along to its customers, although there are timing delays of varying lengths depending upon the volatility in copper and aluminum prices, the type of product, competitive conditions and particular customer arrangements. A significant portion of the Company's energy and communications business and, to a lesser extent, the Company's industrial business has metal escalators written into customer contracts under a variety of price setting and recovery formulas. The remainder of the Company's business requires that the cost of higher metal prices be recovered through negotiated price increases with customers. In these instances, the ability to increase the Company's selling prices may lag the movement in metal prices by a period of time as the customer price increases are implemented. As a result of this and a number of other practices intended to match copper and aluminum purchases with sales, profitability over time has historically not been significantly affected by changes in copper and aluminum prices. General Cable does not engage in speculative metals trading or other speculative activities. Also, the Company does not engage in activities to hedge the underlying value of its copper and aluminum inventory.

Other raw materials utilized by the Company include nylon, polyethylene resin and compounds and plasticizers, fluoropolymer compounds, optical fiber and a variety of filling, binding and sheathing materials. In 2004, the Company produced approximately 26% of its PVC compound requirements for its North American operations. The Company believes that all of these materials are available in sufficient quantities through purchases in the open market.

### **Patents and Trademarks**

The Company believes that the success of its business depends more on the technical competence, creativity and marketing abilities of its employees than on any individual patent, trademark or copyright. Nevertheless, the Company has a policy of

seeking patents when appropriate on inventions concerning new products and product improvements as part of its ongoing research, development and manufacturing activities.

The Company owns a number of U.S. and foreign patents and has patent applications pending in the U.S. and abroad. The Company also owns a number of U.S. and foreign registered trademarks and has many applications for new registrations pending.

Although in the aggregate these patents and trademarks are of considerable importance to the manufacturing and marketing of many of the Company's products, it does not consider any single patent or trademark or group of patents or trademarks to be material to its business as a whole. While the Company occasionally obtains patent licenses from third parties, none are deemed to be material. Trademarks which are considered to be generally important are General Cable®, Anaconda®, BICC® and Carol®, and the Company's triad symbol. The Company believes that its products bearing these trademarks have achieved significant brand recognition within the industry.

The Company also relies on trade secret protection for its confidential and proprietary information. The Company routinely enters into confidentiality agreements with its employees. There can be no assurance, however, that others will not independently obtain similar information and techniques or otherwise gain access to the Company's trade secrets or that the Company will be able to effectively protect its trade secrets.

### **Environmental Matters**

The Company is subject to a variety of federal, state, local and foreign laws and regulations covering the storage, handling, emission and discharge of materials into the environment, including CERCLA, the Clean Water Act, the Clean Air Act (including the 1990 amendments) and the Resource Conservation and Recovery Act.

The Company's subsidiaries in the United States have been identified as potentially responsible parties with respect to several sites designated for cleanup under CERCLA or similar state laws, which impose liability for cleanup of certain waste sites and for related natural resource damages without regard to fault or the legality of waste generation or disposal. Persons liable for such costs and damages generally include the site owner or operator and persons that disposed or arranged for the disposal of hazardous substances found at those sites. Although CERCLA imposes joint and several liability on all potentially responsible parties, in application, the potentially responsible parties typically allocate the investigation and cleanup costs based upon, among other things, the volume of waste contributed by each potentially responsible party.

Settlements can often be achieved through negotiations with the appropriate environmental agency or the other potentially responsible parties. Potentially responsible parties that contributed small amounts of waste (typically less than 1% of the waste) are often given the opportunity to settle as "deminimus" parties, resolving their liability for a particular site. The Company does not own or operate any of the waste sites with respect to which it has been named as a potentially responsible party by the government. Based on the Company's review and other factors, it believes that costs to the Company relating to environmental clean-up at these sites will not have a material adverse effect on its results of operations, cash flows or financial position.

In the transaction with Wassall PLC in 1994, American Premier Underwriters, Inc. agreed to indemnify the Company against liabilities (including all environmental liabilities) arising out of the Company's or the Company's predecessors' ownership or operation of the Indiana Steel & Wire Company and Marathon Manufacturing Holdings, Inc. businesses (which were divested by the predecessor prior to the 1994 Wassall transaction), without limitation as to time or amount. American Premier also agreed to indemnify the Company against 66⅔% of all other environmental liabilities arising out of the Company's or the Company's predecessors' ownership or operation of other properties and assets in excess of \$10 million but not in excess of \$33 million, which were identified during the seven-year period ended June 2001. Indemnifiable environmental liabilities through June 2001 were substantially below that threshold. In addition, the Company also has claims against third parties with respect to some of these liabilities.

During 1999, the Company acquired the worldwide energy cable and cable systems business of Balfour Beatty plc, previously known as BICC plc. As part of this acquisition, the seller agreed to indemnify the Company against environmental liabilities existing at the date of the closing of the purchase of the business. The indemnity is for an eight-year period ending in 2007, while the Company operates the businesses, subject to certain sharing of losses (with BICC plc covering 95% of losses in the first three years, 80% in years four and five and 60% in the remaining three years). The indemnity is also subject to the overall indemnity limit of \$150 million, which applies to all warranty and indemnity claims in the transaction. In addition, BICC plc assumed responsibility for cleanup of certain specific conditions at various sites operated by the Company and cleanup is mostly complete at these sites. In the sale of the businesses to Pirelli in August 2000, the Company generally indemnified Pirelli against any environmental liabilities on the same basis as BICC plc indemnified it in the earlier acquisition. However, the indemnity the Company received from BICC plc relating to the European businesses sold to Pirelli terminated upon the sale of those businesses to Pirelli. In addition, the Company generally indemnified Pirelli against other

claims relating to the prior operation of the business. Pirelli has asserted claims under this indemnification. The Company is continuing to investigate these claims and believes that the reserves currently included in the Company's balance sheet are adequate to cover any obligations it may have.

General Cable has agreed to indemnify Raychem HTS Canada, Inc. against certain environmental liabilities arising out of the operation of the business it sold to Raychem HTS Canada, Inc. prior to its sale. The indemnity generally is for a five year period from the closing of the sale and is subject to an overall limit of \$60 million. At this time, there are no claims outstanding under this indemnity.

General Cable has also agreed to indemnify Southwire Company against certain environmental liabilities arising out of the operation of the business it sold to Southwire prior to its sale. The indemnity is for a ten year period from the closing of the sale and is subject to an overall limit of \$20 million. At this time, there are no claims outstanding under this indemnity.

While it is difficult to estimate future environmental liabilities accurately, the Company does not currently anticipate any material adverse effect on its results of operations, financial condition or cash flows as a result of compliance with federal, state, local or foreign environmental laws or regulations or cleanup costs of the sites discussed above.

## Employees

At December 31, 2004, approximately 6,300 persons were employed by General Cable, and collective bargaining agreements covered approximately 3,600 employees at various locations around the world. During the last five calendar years, the Company has experienced one strike in North America and one strike in Oceania both of which were settled on satisfactory terms. There have been no other major strikes at any of the Company's facilities during the last five years. In North America, union contracts will expire at three facilities in 2005 and three in 2006. On March 21, 2005, union workers at the Company's Lincoln, Rhode Island manufacturing facility commenced a strike. As of the date of this filing, the parties had not reached agreement on a new contract and therefore the union workers remained on strike. Both parties are continuing to work together to reach a new contract. The Company does not expect that the strike will have a significant impact on its financial results for the first quarter of 2005. In Europe and Oceania, labor agreements are generally negotiated on an annual or bi-annual basis. The Company believes that its relationships with its employees are good.

## Item 2. Properties

The Company's principal properties are listed below. The Company believes that its properties are generally well maintained and are adequate for the Company's current level of operations.

<u>Location</u>	<u>Square Feet</u>	<u>Use/Product Line(s)</u>	<u>Owned or Leased</u>
<b>North America</b>			
<b><i>Manufacturing Facilities:</i></b>			
Marion, IN	745.000	Industrial & specialty cables	Owned
Marshall, TX	692.000	Aluminum low-voltage energy cables	Owned
Willimantic, CT	686.000	Industrial & specialty cables	Owned
Manchester, NH	550.000	Electronic products	Owned
Lawrenceburg, KY	383.000	Outside voice and data products and data communications products	Owned
Bonham, TX	364.000	Outside voice and data products	Owned
Lincoln, RI	350.000	Industrial & specialty cables and automotive products	Owned
Malvern, AR	338.000	Aluminum medium-voltage energy cables	Owned
DuQuoin, IL	279.000	Medium-voltage energy cables	Owned
Tetla, Mexico	218.000	Outside voice and data products	Owned
Altoona, PA	193.000	Automotive products	Owned
Jackson, TN	182.000	Data communications cables	Owned
LaMalbaie, Canada	120.000	Low-and medium-voltage energy cables	Owned
St. Jerome, Canada	110.000	Low-and medium-voltage energy cables	Owned
<b><i>Distribution and Other Facilities:</i></b>			
Lebanon, IN	198.000	Distribution center	Leased
Chino, CA	189.000	Distribution center	Leased
Highland Heights, KY	166.000	World headquarters, technology center and learning center	Owned
<b>International</b>			
Barcelona, Spain(1)	1,080.000	Power transmission and distribution, industrial & specialty cables	Owned
New Zealand(1)	314.000	Power distribution, industrial & specialty and communications cables	Owned
Lisbon, Portugal	255.000	Power distribution, industrial & specialty and communications cables	Owned

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(1) Certain locations represent a collection of facilities in the local area.

### Item 3. Legal Proceedings

General Cable is subject to numerous federal, state, local and foreign laws and regulations relating to the storage, handling, emission and discharge of materials into the environment, including CERCLA, the Clean Water Act, the Clean Air Act (including the 1990 amendments) and the Resource Conservation and Recovery Act.

General Cable subsidiaries have been identified as potentially responsible parties with respect to several sites designated for cleanup under CERCLA or similar state laws, which impose liability for cleanup of certain waste sites and for related natural resource damages without regard to fault or the legality of waste generation or disposal. General Cable does not own or operate any of the waste sites with respect to which it has been named as a potentially responsible party by the government. Based on its review and other factors, management believes that costs relating to environmental clean-up at these sites will not have a material adverse effect on the Company's results of operations, cash flows or financial position.

American Premier Underwriters, Inc., in connection with the 1994 Wassall PLC transaction, agreed to indemnify General Cable against liabilities (including all environmental liabilities) arising out of General Cable or its predecessors' ownership or operation of the Indiana Steel & Wire Company and Marathon Manufacturing Holdings, Inc. businesses (which were divested by the predecessor prior to the 1994 Wassall transaction), without limitation as to time or amount. American Premier also agreed to indemnify General Cable against 66 $\frac{2}{3}$ % of all other environmental liabilities arising out of General Cable or its predecessors' ownership or operation of other properties and assets in excess of \$10 million but not in excess of \$33 million, which were identified during the seven-year period ended June 2001. Indemnifiable environmental liabilities through June 2001 were substantially below that threshold. In addition, General Cable also has claims against third parties with respect to some of these liabilities. While it is difficult to estimate future environmental liabilities accurately, the Company does not currently anticipate any material adverse effect on results of operations, financial condition or cash flows as a result of compliance with federal, state, local or foreign environmental laws or regulations or cleanup costs of the sites discussed above.

As part of the BICC plc acquisition, BICC agreed to indemnify General Cable against environmental liabilities existing at the date of the closing of the purchase of the business. The indemnity is for an eight-year period ending in 2007 while the Company operates the businesses subject to certain sharing of losses (with BICC plc covering 95% of losses in the first three years, 80% in years four and five and 60% in the remaining three years). The indemnity is also subject to the overall indemnity limit of \$150 million, which applies to all warranty and indemnity claims in the transaction. In addition, BICC plc assumed responsibility for cleanup of certain specific conditions at several sites operated by General Cable and cleanup is mostly complete at those sites. In the sale of the businesses to Pirelli in August 2000, General Cable generally indemnified Pirelli against any environmental liabilities on the same basis as BICC plc indemnified the Company in the earlier acquisition. However, the indemnity General Cable received from BICC plc related to the European businesses sold to Pirelli terminated upon the sale of those businesses to Pirelli. At this time, there are no claims outstanding under the general indemnity provided by BICC plc. The Company is continuing to investigate these claims and believes that the reserves currently included in the Company's balance sheet are adequate to cover any obligations it may have.

General Cable has agreed to indemnify Raychem HTS Canada, Inc. against certain environmental liabilities arising out of the operation of the business it sold to Raychem HTS Canada, Inc. prior to its sale. The indemnity generally is for a five year period from the closing of the sale and is subject to an overall limit of \$60 million. At this time, there are no claims outstanding under this indemnity.

General Cable has also agreed to indemnify Southwire Company against certain environmental liabilities arising out of the operation of the business it sold to Southwire prior to its sale. The indemnity is for a ten year period from the closing of the sale and is subject to an overall limit of \$20 million. At this time, there are no claims outstanding under this indemnity.

General Cable has been a defendant in asbestos litigation for approximately 15 years. As of December 31, 2004, General Cable was a defendant in approximately 49,500 lawsuits. Approximately 33,200 of these lawsuits have been brought on behalf of plaintiffs by a single admiralty law firm ("MARDOC") and seek unspecified damages. Plaintiffs in the MARDOC cases generally allege that they formerly worked in the maritime industry and sustained asbestos-related injuries from products that General Cable ceased manufacturing in the mid-1970's. The MARDOC cases are managed and supervised by a federal judge in the United States District Court for the Eastern District of Pennsylvania ("District Court") by reason of a transfer by the judicial panel on Multidistrict Litigation ("MDL").

In the MARDOC cases in the MDL, the District Court in May 1996 dismissed all pending cases filed without prejudice and placed them on an inactive administrative docket. To reinstate a MARDOC case from the inactive docket, plaintiffs' counsel

must show that the plaintiff not only suffered from a recognized asbestos-related injury, but also must produce specific product identification evidence to proceed against an individual defendant. During 2002, plaintiffs' counsel requested that the District Court allow discovery in approximately 15 cases. Prior to this discovery, plaintiffs' counsel indicated that they believed that product identification could be established as to many of the approximately 100 defendants named in these MARDOC cases. To date, in this discovery, General Cable has not been identified as a manufacturer of asbestos-containing products to which any of these plaintiffs were exposed.

General Cable is also a defendant in approximately 15,000 cases brought in various jurisdictions throughout the United States. About 5,000 of these cases have been brought in federal court in Mississippi or other federal courts and then been transferred to the MDL, but are on a different docket from the MARDOC cases. The vast majority of cases on this MDL docket have been inactive for over four years. Cases may only be removed from this MDL proceeding via a petition filed by the plaintiff indicating that the matter is ready for trial and requesting it be returned to the originating federal district court for trial. Petitions usually only involve plaintiffs suffering from terminal diseases allegedly caused by exposure to asbestos-containing products. To date, in cases which General Cable is a defendant, no plaintiff has requested return of any action to the originating district court for trial.

With regard to the approximately 10,000 remaining cases, General Cable has aggressively defended these cases based upon either lack of product identification as to General Cable manufactured asbestos-containing product and/or lack of exposure to asbestos dust from the use of a General Cable product. In the last 10 years, General Cable has had no cases proceed to verdict. In many of the cases, General Cable was dismissed as a defendant before trial for lack of product identification.

Plaintiffs have asserted monetary damage claims in 365 cases as of the end of 2004. In 346 of these cases, plaintiffs allege only damages in excess of some dollar amount (about \$265,000 per plaintiff); there are no claims for specific dollar amounts requested as to any defendant. In 19 other cases pending in state and federal district courts (outside the MDL), plaintiffs seek approximately \$47 million in damages from each of about 110 defendants. In addition, in each of these 19 cases, there are claims of \$55 million in punitive damages from all of the defendants. However, almost all of the plaintiffs in these cases allege non-malignant injuries.

Based on our experience in this litigation, the amounts pleaded in the complaints are not typically meaningful as an indicator of the Company's potential liability. This is because (1) the amounts claimed usually bear no relation to the level of plaintiff's injury, if any; (2) complaints nearly always assert claims against multiple defendants (a typical complaint asserts claims against some 110 different defendants); (3) damages alleged are not attributed to individual defendants; (4) the defendants' share of liability may turn on the law of joint and several liability; (5) the amount of fault to be allocated to each defendant is different depending on each case; (6) many cases are filed against General Cable, even though the plaintiff did not use any of General Cable's products, and ultimately are withdrawn or dismissed without any payment; (7) many cases are brought on behalf of plaintiffs who have not suffered any medical injuries, and ultimately are resolved without any payment to that plaintiff; and (8) with regard to claims for punitive damages, potential liability generally is related to the amount of potential exposure to asbestos from a defendant's products. General Cable's asbestos-containing products contained only a minimal amount of fully encapsulated asbestos.

Further, as indicated above, General Cable has more than 15 years of experience in this litigation, and has, to date, resolved the claims of approximately 11,200 plaintiffs. The cumulative average settlement for these matters is less than \$210 per case. As of December 31, 2004, the Company had accrued on its balance sheet a liability of \$3.0 million for asbestos-related claims. This amount represents the Company's best estimate in order to cover resolution of future asbestos-related claims.

In January 1994, General Cable entered into a settlement agreement with certain principal primary insurers concerning liability for the costs of defense, judgments and settlements, if any, in all of the asbestos litigation described above. Subject to the terms and conditions of the settlement agreement, the insurers are responsible for a substantial portion of the costs and expenses incurred in the defense or resolution of this litigation. In recent years one of the insurers participating in the settlement that was responsible for a significant portion of the contribution under the settlement agreement entered into insurance liquidation proceedings. As a result, the contribution of the insurers has been reduced and the Company has had to bear a larger portion of the costs relating to these lawsuits. Moreover, certain of the other insurers may be financially unstable, and if one or more of these insurers enter into insurance liquidation proceedings, General Cable will be required to pay a larger portion of the costs incurred in connection with these cases.

Based on (1) the terms of the insurance settlement agreement; (2) the relative costs and expenses incurred in the disposition of past asbestos cases; (3) reserves established on our books which are believed to be reasonable; and (4) defenses available to us in the litigation, the Company believes that the resolution of the present asbestos litigation will not have a material adverse effect on financial results, cash flows or financial position. However, since the outcome of litigation is inherently

uncertain, the Company cannot give absolute assurance regarding the future resolution of the asbestos litigation. Liabilities incurred in connection with asbestos litigation are not covered by the American Premier indemnification.

General Cable is also involved in various routine legal proceedings and administrative actions. In the opinion of the Company's management, these proceedings and actions should not, individually or in the aggregate, have a material adverse effect on its results of operations, cash flows or financial position.

#### **Item 4. Submission of Matters to a Vote of Security Holders**

None during the fourth quarter of 2004.

## **PART II.**

### **Disclosure Regarding Forward-Looking Statements**

Certain statements in the 2004 Annual Report on Form 10-K including without limitation, statements regarding future financial results and performance, plans and objectives, capital expenditures and the Company's or management's beliefs, expectations or opinions, are forward-looking statements. Actual results may differ materially from those statements as a result of factors, risks and uncertainties over which the Company has no control. Such factors include economic and political consequences resulting from the September 2001 terrorist attack and the war with Iraq, domestic and local country price competition, particularly in certain segments of the power cable market and other competitive pressures; general economic conditions, particularly in construction; changes in customer or distributor purchasing patterns in our business segments; the Company's ability to increase manufacturing capacity and productivity; the financial impact of any future plant closures; the Company's ability to successfully complete and integrate acquisitions and divestitures; the Company's ability to negotiate extensions of labor agreements on acceptable terms; the Company's ability to service debt requirements and maintain adequate domestic and international credit facilities and credit lines; the Company's ability to pay dividends on its preferred stock; the impact of unexpected future judgments or settlements of claims and litigation; the Company's ability to achieve target returns on investments in its defined benefit plans; the Company's ability to avoid limitations on utilization of net losses for income tax purposes; the cost of raw materials, including copper and aluminum; the Company's ability to increase its selling prices during periods of increasing raw material costs; the impact of foreign currency fluctuations; the impact of technological changes; and other factors.

### **Item 5. Market for Registrant's Common Stock and Related Stockholder Matters**

General Cable's common stock is listed on the New York Stock Exchange under the symbol "BGC". As of March 1, 2005, there were approximately 2,241 holders of the Company's common stock. The following table sets forth the high and low daily sales prices for the Company's common stock as reported on the New York Stock Exchange during the years ended December 31:

	2004		2003	
	High	Low	High	Low
First Quarter	\$9.19	\$6.87	\$4.25	\$3.11
Second Quarter	8.77	6.79	6.36	3.65
Third Quarter	11.14	7.95	10.06	5.30
Fourth Quarter	14.10	9.59	10.23	7.81

General Cable paid a \$0.05 per share dividend on its common stock each quarter beginning in the fourth quarter of 1997 and through the third quarter of 2002. In October 2002, as a result of an amendment to the Company's former credit facility, its board of directors suspended the payment of the quarterly cash dividends on common stock. The future payment of dividends on common stock is subject to the discretion of General Cable's board of directors, restrictions under the Series A redeemable convertible preferred stock, restrictions under the Company's current senior secured revolving credit facility and the senior notes and the requirements of Delaware General Corporation Law, and will depend upon general business conditions, financial performance and other factors the Company's board of directors may consider relevant. General Cable does not expect to pay cash dividends on common stock in the foreseeable future.

On November 24, 2003, the Company completed a comprehensive refinancing of its existing bank debt. The refinancing included the private placement of senior unsecured notes and redeemable convertible preferred stock. These securities were not registered under the Securities Act at the time of sale. The underwriters for both transactions were UBS Investment Bank and Merrill Lynch. The Company raised \$285.0 million through the sale of its 9.5% Senior Notes due 2010. The Company paid fees and expenses of \$8.7 million related to this transaction, which included an underwriting discount of \$7.5 million. The senior notes were offered only to qualified institutional buyers under Rule 144A of the Securities Act of 1933 and to certain non-U.S. persons in transactions outside the United States in reliance on Regulation S under the Securities Act of 1933. The Company raised \$103.5 million through the sale of 2,070,000 shares of General Cable 5.75% Series A



Redeemable Convertible Preferred Stock. The Company paid fees and expenses of \$4.2 million related to this transaction, which included an underwriting discount of \$3.4 million. The preferred stock was offered only to qualified institutional buyers in reliance on Rule 144A under the Securities Act. The preferred stock has a liquidation preference of \$50.00 per share. Dividends accrue on the convertible preferred stock at the rate of 5.75% per annum and are payable quarterly in arrears starting on February 24, 2004. Dividends are payable in cash, shares of General Cable common stock or a combination thereof. Holders of the convertible preferred stock are entitled to convert any or all of their shares of convertible preferred stock into shares of General Cable common stock, at an initial conversion price of \$10.004 per share. The conversion price is subject to adjustments under certain circumstances. General Cable is obligated to redeem all outstanding shares of convertible preferred stock on November 24, 2013 at par. The Company may, at its option, elect to pay the redemption price in cash or in shares of General Cable common stock with an equivalent fair value, or any combination thereof. The Company has the option to redeem some or all of the outstanding shares of convertible preferred stock in cash beginning on the fifth anniversary of the issue date. The redemption premium will initially equal one-half the dividend rate on the convertible preferred stock and decline ratably to par on the date of mandatory redemption. In the event of a change in control, the Company has the right to either redeem the preferred stock for cash or to convert the preferred stock to common stock.

The following table sets forth information about General Cable's equity compensation plans as of December 31, 2004 (in thousands, except per share price):

	Number of securities to be issued upon exercise of outstanding options	Weighted-average exercise price of outstanding options	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in first column)
Shareholder approved plans:			
1997 Stock Incentive Plan (a)	2,229	\$12.07	569
Non-shareholder approved plans:			
2000 Stock Option Plan	<u>1,057</u>	<u>\$ 7.80</u>	<u>278</u>
Total	<u>3,286</u>	<u>\$10.70</u>	<u>847</u>

(a) Excludes matching restricted stock units (MRSU) and restricted stock of 82,932 and 1,410,686, respectively, awarded and outstanding through December 31, 2004.

#### Item 6. Selected Financial Data

The selected financial data for the last five years were derived from audited consolidated financial statements. The following selected financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and related notes thereto. Certain reclassifications have been made to conform to the current year's presentation.

In August 2000, General Cable sold certain businesses acquired from BICC plc consisting primarily of the operations in the United Kingdom, Italy and Africa and a joint venture interest in Malaysia to Pirelli Cavi e Sistemi S.p.A. The financial data presented below contain those operations sold to Pirelli during 2000 up through the date of sale.

In September 2000, General Cable acquired Telmag S.A. de C.V., a Mexico-based manufacturer of telecommunications cables. The financial data presented below include the results of operations of this business after the closing date.

In March 2001, General Cable sold its Pyrotenax business unit to Raychem HTS Canada, Inc. The results of operations of this business are included in the financial data presented below for the periods prior to the closing date.

In September 2001, General Cable announced its decision to exit the consumer cordsets business. In October 2001, the Company sold substantially all of the manufacturing assets and inventory of its building wire business to Southwire Company. The results of operations of these businesses are included in the financial data presented below for the periods prior to the closing date. Beginning in the third quarter of 2001, General Cable reported the building wire and cordsets segment as discontinued operations for financial reporting purposes. Administrative expenses formerly allocated to this segment are now reported in the continuing operations segments. Prior periods presented reflect this change.

	Year Ended December 31.				
	2004	2003	2002	2001 <sup>(1)</sup>	2000 <sup>(1)</sup>
<b>Statement of Operations Data:</b>	<b>(in millions, except metal price and share data)</b>				
Net sales	\$1,970.7	\$1,538.4	\$1,453.9	\$1,651.4	\$2,162.1
Gross profit	214.7	173.4	166.6	240.7	291.7
Operating income	56.5	45.7	15.7	104.3	34.1
Other income (expense)	(1.2)	1.5	-	8.1	-
Interest expense, net	(35.9)	(43.1)	(42.6)	(43.9)	(59.8)
Other financial costs	-	(6.0)	(1.1)	(10.4)	(3.3)
Income (loss) before income taxes	19.4	(1.9)	(28.0)	58.1	(29.0)
Income tax benefit (provision)	18.1	(2.9)	9.9	(20.6)	10.3
Income (loss) from continuing operations	37.5	(4.8)	(18.1)	37.5	(18.7)
Loss from discontinued operations	-	-	-	(6.8)	(7.7)
Income (loss) on disposal of discontinued operations	0.4	-	(5.9)	(32.7)	-
Net income (loss)	37.9	(4.8)	(24.0)	(2.0)	(26.4)
Less: preferred stock dividends	(6.0)	(0.6)	-	-	-
Net income (loss) applicable to common shareholders	\$ 31.9	\$ (5.4)	\$ (24.0)	\$ (2.0)	\$ (26.4)
Earnings (loss) of continuing operations per common share	\$ 0.81	\$ (0.16)	\$ (0.55)	\$ 1.14	\$ (0.56)
Earnings (loss) of continuing operations per common share assuming dilution	\$ 0.75	\$ (0.16)	\$ (0.55)	\$ 1.13	\$ (0.56)
Earnings (loss) of discontinued operations per common share	\$ 0.01	-	\$ (0.18)	\$ (1.20)	\$ (0.23)
Earnings (loss) of discontinued operations per common share assuming dilution	\$ 0.01	-	\$ (0.18)	\$ (1.19)	\$ (0.23)
Earnings (loss) per common share	\$ 0.82	\$ (0.16)	\$ (0.73)	\$ (0.06)	\$ (0.79)
Earnings (loss) per common share assuming dilution	\$ 0.75	\$ (0.16)	\$ (0.73)	\$ (0.06)	\$ (0.79)
Basic weighted average shares outstanding	39.0	33.6	33.0	32.8	33.6
Diluted weighted average shares outstanding	50.3	33.6	33.0	33.1	33.6
<b>Other Data:</b>					
Depreciation and amortization	\$ 35.4	\$ 33.4	\$ 30.6	\$ 35.0	\$ 56.0
Capital expenditures	\$ (37.0)	\$ (19.1)	\$ (31.4)	\$ (54.9)	\$ (56.0)
Average daily COMEX price per pound of copper cathode	\$ 1.29	\$ 0.81	\$ 0.72	\$ 0.73	\$ 0.84
Average daily price per pound of aluminum rod	\$ 0.85	\$ 0.69	\$ 0.65	\$ 0.69	\$ 0.75

	December 31.				
	2004	2003	2002	2001	2000
<b>Balance Sheet Data:</b>					
Working capital <sup>(2)</sup>	\$ 298.0	\$ 236.6	\$ 150.8	\$ 169.9	\$ 375.3
Total assets	1,220.8	1,049.5	973.3	1,005.3	1,319.2
Long-term debt <sup>(3)</sup>	373.8	338.1	411.1	421.0	611.9
Dividends to common shareholders	-	-	5.0	6.6	6.7
Shareholders' equity	301.4	240.1	60.9	104.9	128.5

(1) As of January 1, 2001, General Cable changed its accounting method for non-North American metal inventories from the FIFO method to the LIFO method. The impact of the change was an increase in operating income of \$4.1 million, or \$0.08 of earnings per share, on both a basic and a diluted basis during 2001. As of January 1, 2000, the Company changed its accounting method for its North American non-metal inventories from the FIFO method to the LIFO method. The impact of the change was an increase in operating income of \$6.4 million, or \$0.12 of earnings per share, on both a basic and diluted basis during 2000.

(2) Working capital means current assets less current liabilities.

(3) Excludes off-balance sheet borrowings of \$67.8 million at December 31, 2001 and \$48.5 million at December 31, 2002. There were no off-balance sheet borrowings as of December 31, 2000, 2003 and 2004.

## **Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations**

### **Overview**

The following Management's Discussion and Analysis ("MD&A") is intended to help the reader understand General Cable Corporation. MD&A is provided as a supplement to the Company's Consolidated Financial Statements and the accompanying Notes to Consolidated Financial Statements ("Notes") and should be read in conjunction with these Consolidated Financial Statements and Notes. This overview provides the Company's perspective on the sections included in MD&A. MD&A includes the following:

- General – a general description of the Company's business, financial information by geographic regions, raw material price volatility and seasonal trends.
- Current Business Environment – the Company's perspective on the challenges it faces and its relative competitive advantage.
- Acquisitions and Divestitures – a brief history of acquisitions and divestitures as they relate to the financial statements presented.
- Critical Accounting Policies and Estimates – a discussion of the accounting policies that require critical judgments and estimates.
- The Refinancing – a description of the comprehensive refinancing in the fourth quarter of 2003.
- Results of Operations – an analysis of the Company's results of operations for the financial statement periods presented.
- Liquidity and Capital Resources – an analysis of cash flows, sources and uses of cash.

### **General**

General Cable is a leader in the development, design, manufacture, marketing and distribution of copper, aluminum and fiber optic wire and cable products for the energy, industrial & specialty and communications markets. Energy cables include low-, medium- and high-voltage power distribution and power transmission products for overhead and buried applications. Industrial & specialty wire and cable products conduct electrical current for industrial, OEM, commercial and residential power and control applications. Communications wire and cable products transmit low-voltage signals for voice, data, video and control applications.

Certain statements in this report including, without limitation, statements regarding future financial results and performance, plans and objectives, capital expenditures and the Company's or management's beliefs, expectations or opinions, are forward-looking statements. Actual results may differ materially from those statements as a result of factors, risks and uncertainties over which the Company has no control. Such factors include economic and political consequences resulting from the September 2001 terrorist attack and the war with Iraq, domestic and local country price competition, particularly in certain segments of the power cable market and other competitive pressures; general economic conditions, particularly in construction; changes in customer or distributor purchasing patterns in our business segments; the Company's ability to increase manufacturing capacity and productivity; the financial impact of any future plant closures; the Company's ability to successfully complete and integrate acquisitions and divestitures; the Company's ability to negotiate extensions of labor agreements on acceptable terms; the Company's ability to service debt requirements and maintain adequate domestic and international credit facilities and credit lines; the Company's ability to pay dividends on its preferred stock; the impact of unexpected future judgments or settlements of claims and litigation; the Company's ability to achieve target returns on investments in its defined benefit plans; the Company's ability to avoid limitations on utilization of net operating losses for income tax purposes; the cost of raw materials, including copper; the Company's ability to increase its selling prices during periods of increasing raw material costs; the impact of foreign currency fluctuations; the impact of technological changes; and other factors.

General Cable analyzes its worldwide operations in two geographic groups: 1) North America and 2) International. The following table sets forth net sales and operating income by geographic group for the periods presented, in millions of dollars:

	Year Ended December 31,					
	2004		2003		2002	
	Amount	%	Amount	%	Amount	%
<b>Net sales:</b>						
North America	\$1,300.6	66%	\$1,074.2	70%	\$1,077.2	74%
International	670.1	34%	464.2	30%	376.7	26%
Total net sales	<u>\$1,970.7</u>	<u>100%</u>	<u>\$1,538.4</u>	<u>100%</u>	<u>\$1,453.9</u>	<u>100%</u>
<b>Operating income (loss):</b>						
North America	\$ 17.1	25%	\$ 5.6	10%	\$ 15.0	31%
International	52.3	75%	48.3	90%	34.1	69%
Subtotal	<u>69.4</u>	<u>100%</u>	<u>53.9</u>	<u>100%</u>	<u>49.1</u>	<u>100%</u>
Corporate and other operating items	(12.9)		(8.2)		(33.4)	
Total operating income	<u>\$ 56.5</u>		<u>\$ 45.7</u>		<u>\$ 15.7</u>	

Approximately 90% of net sales in the Company's International operations are derived from energy and industrial & specialty cable sales and the European business specifically is currently benefiting from medium voltage energy cable capacity shortage in Europe and a shift towards environmentally friendly cables.

General Cable's reported net sales are directly influenced by the price of copper, and to a lesser extent, aluminum. The price of copper and aluminum has historically been subject to considerable volatility. The daily selling price of copper cathode on the COMEX averaged \$1.29 per pound in 2004, \$0.81 per pound in 2003 and \$0.72 per pound in 2002 and the daily price of aluminum rod averaged \$0.85 per pound in 2004, \$0.69 per pound in 2003 and \$0.65 per pound in 2002. General Cable generally passes changes in copper and aluminum prices along to its customers, although there are timing delays of varying lengths depending upon the volatility of metals prices, the type of product, competitive conditions and particular customer arrangements. A significant portion of the Company's energy and communications business and, to a lesser extent, the Company's industrial business has metal escalators written into customer contracts under a variety of price setting and recovery formulas. The remainder of the Company's business requires that the cost of higher metal prices be recovered through negotiated price increases with customers. In these instances, the ability to increase the Company's selling prices may lag the movement in metal prices by a period of time as the customer price increases are implemented. As a result of this and a number of other practices intended to match copper and aluminum purchases with sales, profitability over time has historically not been significantly affected by changes in copper and aluminum prices. General Cable does not engage in speculative metals trading or other speculative activities. Also, the Company does not engage in activities to hedge the underlying value of its copper and aluminum inventory.

The Company is also experiencing significant inflationary pressure on raw materials other than copper and aluminum used in cable manufacturing, such as insulating compounds, steel and wood reels, and higher energy costs. The Company has increased selling prices in most of its markets in order to offset the negative effect of increased raw material prices and other costs. However, the Company's ability to ultimately realize these price increases will be influenced by competitive conditions in its markets, which includes underutilized manufacturing capacity. In addition, a continuing rise in raw material prices, when combined with the normal lag time between an announced customer price increase and its effective date in the market, may result in the Company not fully recovering these increased costs. If the Company was not able to adequately increase selling prices in a period of rising raw material costs, the Company would experience a decrease in reported earnings.

General Cable generally has experienced and expects to continue to experience certain seasonal trends in sales and cash flow. Larger amounts of cash are generally required during the first and second quarters of the year to build inventories in anticipation of higher demand during the spring and summer months, when construction activity increases. In general, receivables related to higher sales activity during the spring and summer months are collected during the fourth quarter of the year.

## **Current Business Environment**

In North America, General Cable has been operating for some time in a difficult business environment. The wire and cable industry is competitive, mature and cost driven. In many business segments, there is little differentiation among industry participants from a manufacturing or technology standpoint. During 2004, the Company's end markets have shown signs of recovery. There has been significant merger and acquisition activity which, we believe, may lead to a reduction in the deployment of inefficient, high cost capacity in the industry. In the energy segment, the 2003 power outages in the U.S., Canada and Europe emphasized a need to upgrade the power transmission infrastructure used by electric utilities, which may, over time, cause an increase in demand for General Cable's energy products. In addition, tax legislation was recently passed in the United States which includes the renewal of tax credits for producing power from wind. This may also cause an increase in demand for the Company's products as the Company is a significant manufacturer of wire and cable used in wind farms. In the industrial & specialty segment industrial construction spending in North America, which influences industrial cable demand, is significantly below the peak levels experienced over the last ten years. However, the Company has seen strengthening demand which may indicate a turnaround in industrial construction spending in North America. This segment has also experienced increased demand for cables utilized in industrial repairs and maintenance and the automotive aftermarket. Over the last two years, the communications segment also has experienced a significant decline from historical spending levels for outside plant telecommunications products and a weak market for switching/local area networking cables. Demand for communications wire and cable products has improved over the last several quarters and the Company believes it will benefit from the consolidation of competitors which occurred early this year in the communications market. The Company anticipates, based on recent regulatory announcements, further deployment of fiber optic products into the telephone network. Increased spending by the telephone companies on fiber deployment may negatively impact their purchases of the Company's copper based telecommunications cable products. However, this impact may be somewhat mitigated in that the Company believes it will benefit from the further investment in fiber broadband networks as its customers will most likely need to upgrade a portion of their copper network to support the fiber network. Additionally, the Company participates in the fiber cable market.

General Cable believes its investment in Lean Six Sigma training, coupled with effectively utilized manufacturing assets, provides a cost advantage compared to many of its competitors and generates cost savings which help offset rising raw material prices and other general economic cost increases. In addition, General Cable's customer and supplier integration capabilities, one-stop selling and geographic and product balance are sources of competitive advantage. As a result, the Company believes it is well positioned, relative to its competitors, in the current business environment.

As part of General Cable's ongoing efforts to reduce total operating costs, the Company continuously evaluates its ability to more efficiently utilize existing manufacturing capacity. Such evaluation includes the costs associated with and benefits to be derived from the combination of existing manufacturing assets into fewer plant locations and the possible outsourcing of certain manufacturing processes. In 2003, the Company announced the rationalization and refocusing of operations of certain of its industrial cable manufacturing plants which resulted in a \$7.6 million charge in the fourth quarter of 2003 (of which approximately \$1.3 million were cash payments) and a \$7.4 million charge in 2004 (of which approximately \$4.7 million were cash payments). During 2004, the Company also closed its rod mill operation and sold certain equipment utilized in that operation which resulted in a net gain of \$0.3 million.

## **Acquisitions and Divestitures**

General Cable actively seeks to identify key trends in the industry to migrate its business to capitalize on expanding markets and new niche markets or exit declining or non-strategic markets in order to achieve better returns. The Company also sets aggressive performance targets for its business and intends to refocus or divest those activities which fail to meet targets or do not fit long-term strategies.

During the second quarter of 2002, General Cable formed a joint venture company to manufacture and market fiber optic cables. General Cable contributed assets, primarily inventory and machinery and equipment, to a subsidiary company which was then contributed to the joint venture in exchange for a \$10.2 million note receivable which resulted in a \$5.6 million deferred gain on the transaction. The December 31, 2003 balance sheets included a \$10.2 million note receivable from the joint venture partner in other non-current assets and a deferred gain from the initial joint venture formation of \$5.6 million in other liabilities. In January 2004, the Company reduced its ownership percentage in the joint venture from 49% to 40% and as a result the deferred gain was reduced to \$4.8 million. Beginning in the first quarter of 2004 the Company consolidated the joint venture company as a result of the adoption of FASB Interpretation (FIN) No. 46, as revised, "Consolidation of Variable Interest Entities." For 2004, the joint venture had sales of \$21.4 million, an operating loss of \$(4.0) million and net loss of \$(4.1) million. Prior to the first quarter of 2004, the joint venture company was accounted for under the equity method of accounting. At December 31, 2003, other non-current assets included an investment in the joint venture of \$3.5 million.

During the fourth quarter of 2004, the Company exchanged the note receivable from the former joint venture partner for the partner's ownership interest in the joint venture company. The ownership interest acquired was recorded at fair value which was \$2.4 million less than the carrying value of the note receivable, net of the deferred gain, which resulted in a \$2.4 million charge. As a result of this transaction, General Cable owned 100% of the fiber optic joint venture company at December 31, 2004.

### **Critical Accounting Policies and Estimates**

The Company's consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America. A summary of significant accounting policies is provided in Note 2 to the Consolidated Financial Statements. The application of these policies requires management to make estimates and judgments that affect the amounts reflected in the financial statements. Management bases its estimates and judgments on historical experience, information that is available to management about current events and actions the Company may take in the future and various other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. The most critical judgments impacting the financial statements include determinations with respect to inventory costing and valuation, pension accounting, the valuation allowance for deferred income taxes and revenue recognition which are discussed below. In addition, significant estimates and judgments are also involved in the valuation allowances for sales incentives and accounts receivable; legal, environmental, asbestos and customer reel deposit liabilities; assets and obligations related to other post-retirement benefits; and self insured workers compensation and health insurance reserves. Management periodically evaluates and updates the estimates used in the application of its accounting policies and adjusts amounts in the financial statements as necessary.

#### *Inventory Costing and Valuation*

General Cable utilizes the LIFO method of inventory accounting for its metals inventory. The Company's use of the LIFO method results in its income statement reflecting the current costs of metals, while metals inventories in the balance sheet are valued at historical costs as the LIFO layers were created. As a result of volatile copper prices, the replacement cost of the Company's copper inventory exceeded the historic LIFO cost by approximately \$38 million at December 31, 2004 and by approximately \$13 million at December 31, 2003. If LIFO inventory quantities are reduced in a period when replacement costs exceed the LIFO value of the inventory, the Company would experience an increase in reported earnings. Conversely, if LIFO inventory quantities are reduced in a period when replacement costs are lower than the LIFO value of the inventory, the Company would experience a decline in reported earnings. If the Company was not able to recover the LIFO value of its inventory at a profit in some future period when replacement costs were lower than the LIFO value of the inventory, the Company would be required to take a charge to recognize in its income statement all or a portion of the higher LIFO value of the inventory.

The Company periodically evaluates the realizability of its inventory. In circumstances where inventory levels are in excess of anticipated market demand, where inventory is deemed to be technologically obsolete or not saleable due to condition or where inventory costs exceeds net realizable value, the Company records a charge to cost of goods sold and reduces the inventory to its net realizable value.

#### *Pension Accounting*

Pension expense for the defined benefit pension plans sponsored by General Cable is determined based upon a number of actuarial assumptions, including an expected long-term rate of return on assets of 8.5%. This assumption was based on input from actuaries, including their review of historical 10 year, 20 year, and 25 year rates of inflation and real rates of return on various broad equity and bond indices in conjunction with the diversification of the asset portfolio. The expected long-term rate of return on assets is based on an asset allocation assumption of 65% allocated to equity investments, with an expected real rate of return of 7%, and 35% to fixed-income investments, with an expected real rate of return of 3%, and an assumed long-term rate of inflation of 3%. Because of market fluctuations, the actual asset allocations as of December 31, 2004 and December 31, 2003 were 68% and 74%, respectively, of equity investments and 32% and 26%, respectively, of fixed-income investments. Management believes that long-term asset allocations on average will approximate the Company's assumptions and that an 8.5% long-term rate of return is a reasonable assumption.

The determination of pension expense for the defined benefit pension plans is based on the fair market value of assets as of the measurement date. Investment gains and losses are recognized in the measurement of assets immediately. Such gains and losses will be amortized and recognized as part of the annual benefit cost to the extent that unrecognized net gains and losses from all sources exceed 10% of the greater of the projected benefit obligation or the market value of assets.

The determination of future pension obligations utilizes a discount rate based on a review of long-term bonds that receive one of the two highest ratings given by a recognized rating agency which are expected to be available during the period to

maturity of the projected pension benefit obligations, and input from our actuaries. The discount rate used at December 31, 2004 was 6.0%.

General Cable evaluates its actuarial assumptions at least annually, and adjusts them as necessary. In 2004, pension expense for the Company's defined benefit plans was \$5.5 million. Based on an expected rate of return on plan assets of 8.5% a discount rate of 6.0% and various other assumptions, the Company estimates its 2005 pension expense for its defined benefit plans will decrease approximately \$0.7 million from 2004, primarily due to improved investment performance during 2004. A 1% decrease in the assumed discount rate would increase pension expense by approximately \$1.7 million. Future pension expense will depend on future investment performance, changes in future discount rates and various other factors related to the populations participating in the plans. In the event that actual results differ from the actuarial assumptions, the funded status of the defined benefit plans may change and any such change could result in a charge or credit to equity and an increase or decrease in future pension expense and cash contributions.

#### *Deferred Income Tax Valuation Allowance*

General Cable records a valuation allowance to reduce deferred tax assets to the amount that it believes is more likely than not to be realized. The valuation of the deferred tax asset is dependent on, among other things, the ability of the Company to generate a sufficient level of future taxable income. In estimating future taxable income, the Company has considered both positive and negative evidence, such as historical results of operations, including the losses realized in recent periods, and has considered the implementation of prudent and feasible tax planning strategies. Approximately \$20 million of this deferred tax asset must be utilized prior to its expiration in the period 2006-2009. The remainder of the asset may be used for at least 15 years. This finite life has also been considered by the Company in the valuation of the asset. The Company has and will continue to review on a quarterly basis its assumptions and tax planning strategies and, if the amount of the estimated realizable net deferred tax asset is less than the amount currently on the balance sheet, the Company would reduce its deferred tax asset, recognizing a non-cash charge against reported earnings. At December 31, 2004, the Company had recorded a net deferred tax asset of \$73.0 million (\$22.6 million current and \$50.4 million long term). At December 31, 2004, the Company concluded that, more likely than not, the net deferred tax asset will be realized.

#### *Revenue Recognition*

Revenue is recognized when goods are shipped to the customer, title and risk of loss are transferred, pricing is fixed or determinable and collectibility is reasonably assured. Most revenue transactions represent sales of inventory. A provision for payment discounts, product returns and customer rebates is estimated based upon historical experience and other relevant factors and is recorded within the same period that the revenue is recognized. Given the nature of the Company's business, revenue recognition practices do not contain estimates that materially affect results of operations.

#### *New Accounting Standards*

In December 2004, SFAS No. 123(R), "Share-Based Payment" was issued. This statement will require compensation costs related to share-based payment transactions to be recognized in the financial statements. With limited exceptions, the amount of compensation cost will be measured based on the grant date fair value of the equity instruments issued. Compensation cost will be recognized over the period that an employee provides service in exchange for the award. SFAS No. 123 (R) replaces SFAS No. 123 and supersedes APB Option No. 25. SFAS No. 123 (R) is effective for fiscal quarters beginning after June 15, 2005. The Company is currently evaluating the impact of adopting SFAS No. 123 (R) on its financial position, results of operations and cash flows.

In November 2004, SFAS No. 151, "Inventory Costs, an amendment of ARB No. 43, Chapter 4" was issued. This statement clarifies the accounting for abnormal amounts of idle facility expense, freight, handling costs and wasted material. SFAS No. 151 is effective for inventory costs incurred during fiscal years beginning after June 15, 2005. The Company is currently evaluating the impact of adopting SFAS No. 151 on its financial position, results of operations and cash flows.

#### **The Refinancing**

On November 24, 2003, the Company completed a comprehensive refinancing of its existing bank debt which improved its capital structure and provided increased financial and operating flexibility by reducing leverage, increasing liquidity and extending debt maturities. The refinancing included the following: (i) a new senior secured revolving credit facility, (ii) the private placement of 7-year senior unsecured notes, (iii) the private placement of redeemable convertible preferred stock and (iv) a public offering of common stock. The Company applied the net proceeds from these refinancing transactions to repay all amounts outstanding under its former senior secured revolving credit facility, senior secured term loans and accounts receivable asset-backed securitization facility and to pay fees and expenses of approximately \$23 million related to the refinancing. In the refinancing the Company raised \$47.6 million through the sale of 5,807,500 shares of common stock at \$8.20 per share (which included a 15% over-allotment option exercised on December 2, 2003) and \$103.5 million through

the sale of 2,070,000 shares of redeemable convertible preferred stock at \$50.00 per share (which included the exercise of an option to purchase additional shares of preferred stock). The preferred stock has an annual dividend rate of 5.75% and a conversion price of \$10.004 per share. The refinancing also included \$285.0 million of 7-year senior unsecured notes due 2010 and a \$240.0 million secured revolving credit facility. The senior unsecured notes bear interest at a fixed rate of 9.5% while loans under the credit facility, as amended, bear interest at a rate of LIBOR plus 200 to 250 basis points, depending on the Company's fixed charge coverage as defined by the Credit Agreement. See further discussion of the amendment to the credit facility on page 27.

## Results of Operations

The following table sets forth, for the periods indicated, statement of operations data in millions of dollars and as a percentage of net sales. Percentages may not add due to rounding.

	Fiscal Years Ended December 31,					
	2004		2003		2002	
	Amount	%	Amount	%	Amount	%
Net sales	\$1,970.7	100.0%	\$1,538.4	100.0%	\$1,453.9	100.0%
Cost of sales	1,756.0	89.1%	1,365.0	88.7%	1,287.3	88.5%
Gross profit	214.7	10.9%	173.4	11.3%	166.6	11.5%
Selling, general and administrative expenses	158.2	8.0%	127.7	8.3%	150.9	10.4%
Operating income	56.5	2.9%	45.7	3.0%	15.7	1.1%
Other income (expense)	(1.2)	-	1.5	0.1%	-	-
Interest expense, net	(35.9)	(1.8)%	(43.1)	(2.8)%	(42.6)	(2.9)%
Other financial costs	-	-	(6.0)	(0.4)%	(1.1)	(0.1)%
Earnings (loss) from continuing operations before income taxes	19.4	1.0%	(1.9)	(0.1)%	(28.0)	(1.9)%
Income tax (provision) benefit	18.1	0.9%	(2.9)	(0.2)%	9.9	0.7%
Income (loss) from continuing operations	37.5	1.9%	(4.8)	(0.3)%	(18.1)	(1.2)%
Gain (loss) on disposal of discontinued operations (net of tax)	0.4	-	-	-	(5.9)	(0.4)%
Net income (loss)	37.9	1.9%	(4.8)	(0.3)%	(24.0)	(1.7)%
Less: preferred stock dividends	(6.0)	(0.3)%	(0.6)	-	-	-
Net income (loss) applicable to common shareholders	\$ 31.9	1.6%	\$ (5.4)	(0.3)%	\$ (24.0)	(1.7)%

## Year Ended December 31, 2004 Compared with Year Ended December 31, 2003

The net income applicable to common shareholders was \$31.9 million in 2004 compared to a net loss applicable to common shareholders of \$(5.4) million in 2003. The net income applicable to common shareholders for 2004 includes pre-tax charges of \$7.1 million relating to the rationalization of certain manufacturing facilities, \$1.5 million for remediation costs, \$2.4 million related to the unwinding of the Company's former fiber optics joint venture and \$1.9 million related to the write-off of goodwill, a \$1.2 million pre-tax loss resulting from unfavorable foreign currency transactions, a \$0.4 after-tax gain from discontinued operations, and a \$23.3 million income tax benefit due to the elimination of certain prior year tax exposures.

The net loss applicable to common shareholders for 2003 includes pre-tax corporate charges of \$7.6 million related to the rationalization of certain of the Company's industrial cable manufacturing facilities and \$2.7 million for severance related to the Company's ongoing cost cutting efforts in Europe. These corporate charges were offset by \$2.1 million of income resulting from the reversal of unutilized restructuring reserves related to the closure in prior years of North American manufacturing facilities. The net loss applicable to common shareholders for 2003 also includes a \$6.0 million charge related to the refinancing of the Company's bank debt and a \$1.5 million foreign currency transaction gain resulting from a favorable change in exchange rates. The net loss applicable to common shareholders for 2003 also includes a \$4.4 million increase in the tax provision in the fourth quarter of 2003 resulting from the Company's refinancing. In conjunction with the refinancing, certain of the Company's foreign subsidiaries guaranteed the Company's new revolving credit facility, resulting in U.S. taxation of these foreign subsidiaries previously unrepatriated earnings and profits as a deemed dividend. This was a non-cash charge in 2003 because the Company utilized net operating losses to offset the additional taxable income.



## Net Sales

The following tables set forth metal-adjusted net sales and metal pounds sold by segment, in millions. Net sales for 2003 have been adjusted to reflect the 2004 copper COMEX average price of \$1.29 per pound (a \$0.48 increase compared to the prior period) and the aluminum rod average price of \$0.85 per pound (a \$0.16 increase compared to the prior period).

Metal-Adjusted Net Sales				
Year Ended December 31,				
		2004	2003	
		<u>Amount</u>	<u>%</u>	<u>Amount</u> <u>%</u>
Energy		\$705.7	36%	\$621.2 35%
Industrial & specialty		734.3	37%	637.6 36%
Communications		530.7	27%	495.3 29%
Total metal-adjusted net sales		1,970.7	100%	1,754.1 100%
Metal adjustment		-		(215.7)
Total net sales		<u>\$1,970.7</u>		<u>\$1,538.4</u>

Metal Pounds Sold				
Year Ended December 31,				
		2004	2003	
		<u>Pounds</u>	<u>%</u>	<u>Pounds</u> <u>%</u>
Energy		275.6	43%	257.9 45%
Industrial & specialty		226.0	35%	197.2 34%
Communications		143.4	22%	123.5 21%
Total metal pounds sold		645.0	100%	578.6 100%

Net sales increased 28% to \$1,970.7 million in 2004 from \$1,538.4 million in 2003. The net sales increase included a 4% increase, or \$57.6 million, due to the favorable impact of foreign currency exchange rate changes. After adjusting 2003 net sales to reflect the \$0.48 increase in the average monthly COMEX price per pound of copper and the \$0.16 increase in the average aluminum rod price per pound in 2004, net sales increased 12% to \$1,970.7 million, up from \$1,754.1 million in 2003. The increase in metal-adjusted net sales reflects a 14% increase in the energy segment, a 15% increase in the industrial & specialty segment and a 7% increase in the communications segment. Metal pounds sold increased 11% compared to 2003. Metal pounds sold is provided herein as the Company believes this metric to be a good measure of sales volume since it is not impacted by metal prices or foreign currency exchange rate changes and the Company believes its product mix to be relatively constant year over year.

The 14% increase in metal-adjusted net sales for the energy segment reflects a 8% increase in net sales in North America and a 26% increase in net sales in the Company's international operations. The North American net sales reflect an increase in demand from power utilities for distribution cables compared to 2003 and an \$8.4 million favorable impact from changes in foreign currency exchange rates. The Company anticipates demand could accelerate if energy legislation in the United States aimed at improving the transmission grid infrastructure is passed. The Company's international operations benefited from increased demand for distribution cables, increased wind farm projects and an \$18.6 million favorable impact from changes in foreign currency exchange rates.

The 15% increase in metal-adjusted net sales in the industrial & specialty segment reflects a 24% increase in the Company's international operations and a 7% increase in North America. The Company believes the continued improvement in North American sales volume indicates a recovery in the end markets for industrial cables. Additionally, this segment has benefited from growth in its domestic automotive aftermarket wire set business and an increase in sales of industrial cables utilized in maintenance, repair and plant operations. The net sales of the Company's international operations increased 24% which reflects strong demand related to its flexible zero-halogen cables in Europe, an area in which the European operation is a leader and a \$25.9 million favorable impact from changes in foreign currency exchange rates.

The 7% increase in the communications segment metal-adjusted net sales reflects an increase in all business units within this segment. Metal-adjusted net sales of telephone exchange cable increased in 2004 compared to 2003 as the Company benefited from the consolidation of competitors in 2004. The sales volume in data communication cables, primarily LAN cables, increased in 2004 compared to 2003, but continues to experience competitive price pressure. Additionally, this segment experienced an increase in sales of electronics products resulting from sustained penetration into targeted niche markets and an increase in sales of wire harness and assembly products.

### *Selling, General and Administrative Expense*

Selling, general and administrative expense increased to \$158.2 million in 2004 from \$127.7 million in 2003. The increase in SG&A was due in part to increased variable selling expenses related to higher sales volumes, changes in foreign currency exchange rates, \$4.7 million for the Company's Sarbanes-Oxley compliance activities and a change in the reporting of the results of the Company's fiber optics joint venture. Additionally, SG&A in 2004 included \$1.1 million of charges related to the rationalization of certain of the Company's manufacturing facilities, \$1.5 million of remediation costs, a \$2.4 million charge associated with the wind down of its former fiber optics joint venture and \$1.9 million related to the write-off of goodwill. As a result of these items, reported SG&A was 8.0% of net sales in 2004, up from 7.3% of metal-adjusted net sales in 2003.

### *Operating Income*

The following table sets forth operating income by segment, in millions of dollars.

Operating Income Year Ended December 31,				
2004		2003		
	Amount	%	Amount	%
Energy	\$39.8	57%	\$38.0	71%
Industrial & specialty	23.0	33%	9.9	18%
Communications	6.6	10%	6.0	11%
Subtotal excluding corporate charges	69.4	100%	53.9	100%
Corporate charges	(12.9)		(8.2)	
Total operating income	\$56.5		\$45.7	

Operating income of \$56.5 million for 2004 increased from \$45.7 million in 2003. The increase was primarily the result of strong performance from the Company's international operations, increased sales volume in all segments, ongoing cost cutting initiatives in manufacturing expenses and the favorable impact of foreign currency exchange rate changes. These increases were partially offset by increased raw material costs (both metal and non-metal) which were not fully recovered through customer price increases, \$4.7 million for the Company's Sarbanes-Oxley compliance activities, \$1.5 million of costs related to the remediation of a former manufacturing facility, and net corporate charges of \$11.4 million relating to the rationalization of certain industrial cable manufacturing facilities, the closure of the Company's rod mill operation and the unwinding of the Company's fiber optic joint venture and goodwill write-off.

### *Other Expense*

Other expense of \$1.2 million in 2004 includes foreign currency transaction losses which resulted from changes in exchange rates between the designated functional currency and the currency in which the transaction is denominated.

### *Interest Expense*

Net interest expense decreased to \$35.9 million in 2004 from \$49.1 million in 2003. The 2003 net interest expense includes \$6.0 million of costs related to the Company's refinancing which consisted of \$4.4 million for the write-off of unamortized bank fees related to the Company's former credit facility, \$0.8 million related to the early termination of interest rate swaps and \$0.8 million related to the early termination of the accounts receivable asset-backed securitization financing. In addition to the prior year refinancing related costs, the decrease in interest expense is the result of lower outstanding borrowings and interest costs under the Company's new debt structure (see previous refinancing discussion) effective November 24, 2003, a lower credit spread under the Company's new credit facility and a reduction in the amortization of bank fees relating to the new credit facility compared to the former credit facility.

### *Tax Provision*

The Company's effective tax rate for 2004 was (93.3)%. The negative effective tax rate was primarily attributable to the settlement of \$23.3 million of prior year tax exposures. Excluding the benefit of the settlement of prior year tax exposures, the Company's effective tax would have been 26.8% which reflects differences in the relative profitability of business operations in various taxing jurisdictions and the utilization of net operating loss carryforwards in foreign tax jurisdictions for which a tax benefit had not been previously recognized.

The 2003 income tax provision of \$2.9 million included \$4.4 million related to a deemed dividend related to the guarantee by certain of the Company's foreign subsidiaries of the Company's new revolving credit facility. The deemed dividend resulted in U.S. taxation of previously unrepatriated foreign earnings and profits, thereby increasing the tax provision but did not

impact cash tax payments as the Company utilized net operating losses to offset this additional taxable income. This increase to the tax provision was offset by \$0.8 million related to foreign income tax differentials and other permanent differences.

#### *Preferred Stock Dividends*

During 2004, the Company accrued and paid \$6.0 million in dividends on its preferred stock.

#### **Year Ended December 31, 2003 Compared with Year Ended December 31, 2002**

The net loss applicable to common shareholders was \$(5.4) million in 2003 compared to a net loss applicable to common shareholders of \$(24.0) million in 2002. The net loss applicable to common shareholders for 2003 includes a \$0.6 million dividend on the preferred stock issued in the fourth quarter of 2003, pre-tax corporate charges of \$7.6 million related to the rationalization of certain of the Company's industrial cable manufacturing facilities and \$2.7 million for severance related to the Company's ongoing cost cutting efforts in Europe. These corporate charges were offset by \$2.1 million of income resulting from the reversal of unutilized restructuring reserves related to the closure in prior years of North American manufacturing facilities. The net loss applicable to common shareholders for 2003 also includes a \$6.0 million charge related to the refinancing of the Company's bank debt and a \$1.5 million foreign currency transaction gain resulting from a favorable change in exchange rates. The net loss applicable to common shareholders for 2003 also includes a \$4.4 million increase in the tax provision in the fourth quarter of 2003 resulting from the Company's refinancing.

The 2002 net loss and net loss applicable to common shareholders of \$(24.0) million includes pre-tax corporate charges of \$34.5 million, of which \$5.6 million was recorded in cost of sales, \$27.8 million was recorded in selling, general and administrative expense and \$1.1 million was recorded in other financial costs. The charges consisted of \$21.2 million to close two manufacturing plants in North America, \$6.9 million in severance and severance related costs worldwide, \$3.6 million to reduce to fair value certain assets contributed to the Company's Fiber Optic joint venture, \$1.7 million related to the sale of the Company's small non-strategic, United Kingdom based specialty cables business, and \$1.1 million related to the write-off of unamortized bank fees as a result of the October 2002 amendment to the Company's former credit facility. The 2002 net loss and net loss applicable to common shareholders of \$(24.0) million also includes a \$5.9 million discontinued operations after-tax charge principally related to an estimated lower net realizable value for real estate remaining from the Company's former building wire business, a longer than anticipated holding period for three distribution centers with unexpired lease commitments and certain other costs.

#### *Net Sales*

The following table sets forth metal-adjusted net sales by segment in millions of dollars. Net sales for the year 2002 have been adjusted to reflect the 2003 copper COMEX average price of \$0.81 per pound and the aluminum rod average price of \$0.69 per pound.

Metal-Adjusted Net Sales				
Year Ended December 31,				
	2003		2002	
	Amount	%	Amount	%
Energy	\$560.2	37%	\$526.8	35%
Industrial & specialty	542.4	35%	520.0	35%
Communications	435.8	28%	447.6	30%
Total metal-adjusted net sales	1,538.4	100%	1,494.4	100%
Metal adjustment	-		(40.5)	
Total net sales	\$1,538.4		\$1,453.9	

Net sales increased 6% to \$1,538.4 million in 2003 from \$1,453.9 million in 2002. The net sales increase included an \$84 million favorable impact of foreign currency exchange rate changes principally related to the Company's European operations. After adjusting 2002 net sales to reflect the \$0.09 increase in the average monthly COMEX price per pound of copper and the \$0.04 increase in the average aluminum rod price per pound in 2003, net sales increased 3% to \$1,538.4 million, up from \$1,494.4 million in 2002. The increase in metal-adjusted net sales reflects a 6% increase in the energy segment, a 4% increase in the industrial & specialty segment and a 3% decrease in the communications segment.

The 6% increase in metal-adjusted net sales for the energy segment reflects a 19% increase in net sales in the Company's international operations and a 1% increase in net sales in North America. The Company's international operations have benefited from increased sales resulting from new contract awards throughout Europe and a \$39.5 million favorable impact from changes in foreign currency exchange rates. The North American net sales reflects lower sales volume during the first

half of 2003 offset by strong demand from power utilities for bare transmission wire in the fourth quarter of 2003. The sales volume in the first quarter of 2003 was also negatively impacted by unseasonable weather in the Midwest and Northeast, which affected the ability of the Company's customers to install cables. The Company's management believes the timing of projects to enhance the power transmission and distribution grid slowed in 2003 in anticipation of pending energy legislation in the United States.

The 4% increase in metal-adjusted net sales in the industrial & specialty segment was principally due to a 19% increase in the Company's international operations, growth in its domestic automotive aftermarket business and an increase in sales of industrial cables utilized in plant maintenance, repairs and operations. The increase in net sales of our international operations includes a \$41.2 million favorable impact from changes in foreign currency exchange rates and the introduction of environmentally friendly cables in Europe, an area in which our European operation is a leader. These increases were partially offset by a 15% decrease in net sales of the North American industrial business, the result of the continued weakness in demand for cables utilized in new industrial construction and other major infrastructure projects.

The 3% decrease in the communications segment metal-adjusted net sales principally relates to a decrease in North American sales volume of telephone exchange cable and data communication cable. Metal-adjusted net sales of telephone exchange cable were off 4% for 2003 compared to 2002. However, sales to the Company's three largest telephone operating company customers increased in the third and fourth quarters of 2003 compared to same periods in 2002. As a result of the Company's position as a low cost producer, these products have historically been one of its most profitable business segments. The sales volume decrease in data communication cables was the result of weak general information technology spending in North America. These decreases were partially offset by an increase in sales of electronics products resulting from sustained penetration into targeted niche markets.

#### *Selling, General and Administrative Expense*

Selling, general and administrative expense decreased to \$127.7 million in 2003 from \$150.9 million in 2002. This decrease reflects the impact of actions taken to reduce fixed SG&A expense and controllable spending. These actions were partially offset by increased medical and pension related costs experienced during 2003 and the impact of increased SG&A expense in our European operations as a result of foreign currency exchange rate changes. SG&A expense for 2003 includes \$0.2 million of corporate charges related to plant rationalizations and the benefit of \$2.1 million related to the reversal of unutilized restructuring reserves. In 2002, SG&A expense included \$27.8 million of corporate charges, primarily relating to the closure of manufacturing plants and severance costs.

#### *Operating Income*

The following table sets forth operating income by segment, in millions of dollars.

	Operating Income Year Ended December 31,			
	2003		2002	
	<u>Amount</u>	<u>%</u>	<u>Amount</u>	<u>%</u>
Energy	\$38.0	71%	\$36.9	75%
Industrial & specialty	9.9	18%	9.7	20%
Communications	6.0	11%	2.5	5%
Subtotal excluding corporate charges	53.9	100%	49.1	100%
Corporate charges	(8.2)		(33.4)	
Total operating income	<u>\$45.7</u>		<u>\$15.7</u>	

Operating income of \$45.7 million for 2003 increased from \$15.7 million in 2002. This increase is primarily the result of reduced corporate charges in 2003, as discussed above. Operating income also increased due to the Company's ongoing cost reduction initiatives in SG&A and manufacturing expenses, strong performance from the Company's European operations and the favorable impact of foreign currency exchange rate changes and a \$2.0 million reduction in the LIFO liquidation charge incurred in 2003 compared to 2002. Offsetting these increases were reduced selling prices in the North American communications segment. Additionally, increased raw material costs (most notably polyethylene) which were not fully recovered during 2003 and higher pension and employee fringe benefit costs negatively impacted operating income.

#### *Other Income*

Other income includes foreign currency transaction gains which result from changes in exchange rates between the designated functional currency and the currency in which a transaction is denominated.

### *Interest Expense*

Net interest expense, excluding other financial costs discussed below, increased to \$43.1 million in 2003 from \$42.6 million in 2002. The increase in interest expense is the result of higher interest costs under the Company's former credit facility during 2003 compared to the prior year, partially offset by reduced interest costs under the Company's new debt structure (see previous Refinancing discussion) effective November 24, 2003. The increase in interest cost under the Company's former credit facility was primarily the result of a higher credit spread for the Company's borrowings due to the former credit facility amendment which became effective in October 2002 and the amortization of bank fees related to the amendment, partially offset by lower average net borrowings and lower interest rates on the floating rate portion of the Company's debt.

As a result of the refinancing during the fourth quarter of 2003, the Company recorded other financial costs of \$6.0 million which consisted of pre-tax charges of \$4.4 million for the write-off of unamortized banks fees related to the Company's former credit facility, \$0.8 million related to the early termination of interest rate swaps and \$0.8 million related to the early termination of the accounts receivable asset-backed securitization financing.

In October 2002, General Cable recorded other financial costs of \$1.1 million related to the write-off of unamortized bank fees as a result of the October 2002 credit facility amendment. Of the \$1.1 million, \$0.6 million related to fees paid in April 2002 for a prior amendment, the terms of which were substantially amended by the October amendment and \$0.5 million was due to a reduction in the borrowing capacity available under the revolving portion of the former credit facility.

### *Tax Provision*

The 2003 income tax provision of \$2.9 million includes \$4.4 million related to a deemed dividend related to the guarantee by certain of the Company's foreign subsidiaries of the Company's new revolving credit facility. The deemed dividend resulted in U.S. taxation of previously unrepatriated foreign earnings and profits, thereby increasing the tax provision but did not impact cash tax payments as the Company utilized net operating losses to offset this additional taxable income. This increase to the tax provision was offset by \$0.8 million related to foreign income tax differentials and other permanent differences. The Company's effective tax rate for 2002 was 35.5%.

### **Liquidity and Capital Resources**

In general, General Cable requires cash for working capital, capital expenditures, debt repayment, salaries and related benefits, interest, preferred dividends and taxes. General Cable's working capital requirement increases when it experiences strong incremental demand for products and/or significant copper and aluminum price increases. Based upon historical experience and the expected availability of funds under the new credit facility, the Company believes its sources of liquidity will be sufficient to enable it to meet the Company's cash requirements for working capital, capital expenditures, debt repayment, salaries and related benefits, interest, preferred dividends and taxes for at least the next twelve months.

General Cable Corporation is a holding company with no operations of its own. All of the Company's operations are conducted, and net sales are generated, by its subsidiaries and investments. Accordingly, the Company's cash flow depends on the cash flows of its operations, in particular, the North American operations upon which it has historically depended the most. However, the Company's ability to use cash flow from its international operations, if necessary, has historically been adversely affected by limitations on the Company's ability to repatriate such earnings tax efficiently. The American Jobs Creation Act of 2004 provides that US corporations can repatriate earnings of foreign subsidiaries at a reduced tax rate under certain circumstances. As of December 31, 2004 the undistributed earnings of foreign subsidiaries that are considered to be indefinitely reinvested are approximately \$135 million. The Company is currently in the process of evaluating how much, if any, of these foreign earnings will be repatriated. The Company will determine the sources and amounts, if any, of the foreign earnings repatriation and the related tax expense prior to December 31, 2005.

Cash flow provided by operating activities in 2004 was \$12.5 million. This reflects an increase in accounts payable, accrued and other liabilities of \$78.8 million and net income before depreciation and amortization, foreign currency exchange loss, deferred income taxes, settlement of tax items, loss on joint venture wind-down and gain on the disposal of property of \$55.5 million. The increase in accounts payable, accrued and other liabilities is primarily due to an increase in accounts payable which reflects greater manufacturing activity by the Company and the increase in raw material costs during 2004 as compared to 2003. These positive cash flows were largely offset by a \$63.7 million increase in accounts receivable, a \$45.3 million increase in inventories and an \$12.8 million increase in prepaid and other assets. The increase in accounts receivable reflects improved sales volume experienced in 2004 as a result of improving demand in the Company's end markets as well as increased pricing in response to increased raw material costs. Inventory has increased as a result of the Company's need to service the improving demand in its end markets. However, inventory turnover for the total Company improved slightly as compared to 2003 due to the Company's focus on supply chain management, application of Lean principles and increasing integration with its customers.

The following table sets forth net cash provided by (used by) operating activities by geographic groups for the following periods (in millions):

	<u>Year Ended December 31.</u>	
	<u>2004</u>	<u>2003</u>
North America	\$(35.6)	\$ (40.3)
International	<u>48.1</u>	<u>25.8</u>
Total	<u>\$ 12.5</u>	<u>\$ (14.5)</u>

Cash flow used by investing activities was \$36.3 million in 2004, principally reflecting \$37.0 million of capital expenditures. The Company anticipates capital spending to be approximately \$40 million in 2005. Additionally, the Company received proceeds of \$2.6 from the sale of property, primarily equipment from the Company's closed facilities.

Cash flow provided by financing activities in 2004 was \$28.8 million. This reflects an increase in borrowings under the Company's new revolving credit facility of \$35.6 million, which was due in part to the higher working capital requirements discussed above as a result of improving demand in the Company's end markets as well as the increase in raw material prices during 2004. In addition, the Company received \$0.4 million in partial payment of loans from shareholders and \$1.1 million in proceeds from the exercise of stock options. This source of cash was partially offset by the payment of preferred stock dividends of \$6.0 million and the \$2.3 million repayment of other debt.

The Company's current senior secured revolving credit facility, as amended, provides for up to \$240.0 million in borrowings, including a \$50.0 million sublimit for the issuance of commercial and standby letters of credit and a \$20.0 million sublimit for swingline loans. Advances under the credit facility are limited to a borrowing base computed using defined advance rates for eligible accounts receivable, inventory, equipment and owned real estate properties. The fixed asset component of the borrowing base is subject to scheduled reductions. At December 31, 2004, the Company had undrawn availability of \$126.0 million under the credit facility.

Indebtedness under the credit facility is guaranteed by the Company's North American subsidiaries and is secured by a first priority security interest in tangible and intangible property and assets of the Company's North American subsidiaries. Loans under the credit facility bear interest at the Company's option, equal to either an alternate base rate or an adjusted LIBOR rate plus an applicable margin percentage. The applicable margin percentage is subject to adjustments based upon the consolidated fixed charge coverage ratio, as defined.

The Company pays fees in connection with the issuance of letters of credit and a commitment fee equal to 50 basis points per annum on any unused commitments under the credit facility. Both fees are payable quarterly.

The credit facility requires that the Company comply with certain financial covenants, including a quarterly minimum fixed charge coverage ratio test and an annual maximum capital expenditures level. In addition, the senior secured revolving credit facility and the indenture governing the senior unsecured notes include negative covenants which restrict certain acts, including the payment of dividends to holders of common stock. However, the Company will be permitted to declare and pay dividends or distributions on the convertible preferred stock so long as there is no default under the senior secured revolving credit facility and the Company meets certain financial conditions.

The Company amended its Credit Agreement, effective October 22, 2004, which reduced the interest rate on borrowings under the credit facility by 50 basis points, increased the annual capital spending limit and provided for the ability to swap up to \$100 million of its existing fixed rate Senior notes to a floating interest rate.

The Company's European operations participate in arrangements with several European financial institutions that provide extended accounts payable terms to the Company on an uncommitted basis. In general, the arrangements provide for accounts payable terms of up to 180 days. At December 31, 2004, the arrangements had a maximum availability limit of the equivalent of approximately \$126 million, of which approximately \$95 million was drawn. Should the availability under these arrangements be reduced or terminated, the Company would be required to negotiate longer payment terms or repay the outstanding obligations with suppliers under this arrangement over 180 days and seek alternative financing arrangements which could increase the Company's interest expense. The Company also has approximately \$45 million of uncommitted facilities in Europe, which allow the Company to sell at a discount a portion of its accounts receivable to financial institutions. At December 31, 2004, these accounts receivable facilities were not drawn upon.

During the fourth quarter of 2002, as a result of declining returns in the investment portfolio of the Company's defined benefit pension plan, the Company was required to record a minimum pension liability equal to the under funded status of its plan. At December 31, 2002, the Company recorded an after-tax charge of \$29.2 million to accumulated other comprehensive income in the equity section of its balance sheet. During 2003, the investment portfolio experienced improved performance and as a result, the Company was able to reduce the after tax charge to accumulated other comprehensive income by \$7.3

million. During 2004, the after tax charge to accumulated other comprehensive income was increased by \$0.2 million. In 2005, pension expense is expected to decrease approximately \$0.7 million from 2004, principally due to improved investment performance during 2004 and cash contributions are expected to decrease approximately \$2.2 million from 2004.

As part of General Cable's ongoing efforts to reduce total operating costs, the Company continuously evaluates its ability to more efficiently utilize existing manufacturing capacity. Such evaluation includes the costs associated with and benefits to be derived from the combination of existing manufacturing assets into fewer plant locations and the possible outsourcing of certain manufacturing processes. The Company previously announced the rationalization and refocusing of operations of certain of its industrial cable manufacturing plants which resulted in a \$7.6 million charge in the fourth quarter of 2003 (of which approximately \$1.3 million were cash payments) and a \$7.4 million in 2004 (of which approximately \$4.7 million were cash payments). These projects were completed at December 31, 2004. During 2004, the Company also closed its rod mill operation and sold certain equipment utilized in that operation which resulted in a net gain in the year of \$0.3 million.

Summarized information about the Company's contractual obligations and commercial commitments as of December 31, 2004 is as follows (in millions of dollars):

Contractual obligations:	Payments Due by Period				
	Total	Less than 1 Year	1 - 3 Years	4 - 5 Years	After 5 Years
Long-term debt	\$374.9	\$ 1.1	\$ 0.5	\$79.0	\$294.3
Interest payments on Senior Notes	162.6	27.1	54.2	54.2	27.1
Preferred Stock dividend payments	53.8	6.0	12.0	12.0	23.8
Operating leases	42.7	7.6	12.4	6.5	16.2
Commodity futures and forward pricing agreements	115.3	114.9	0.4	-	-
Foreign currency contracts	33.6	33.6	-	-	-
Total	<u>\$782.9</u>	<u>\$190.3</u>	<u>\$79.5</u>	<u>\$151.7</u>	<u>\$361.4</u>

The Company will be required to make future cash contributions to its defined benefit pension plans. The estimate for these contributions is approximately \$10.8 million during 2005. Estimates of cash contributions to be made after 2006 are difficult to make due to the number of variable factors which impact the calculation of defined benefit pension plan contributions. General Cable will also be required to make interest payments on its variable rate debt. The interest payments to be made on the Company's revolving loans and other variable debt are based on variable interest rates and the amount of the borrowings under the revolving credit facility depend upon the Company's working capital requirements. The Company's preferred stock dividends are payable in cash or common stock or a combination thereof.

The Company anticipates being able to meet its obligations as they come due based on historical experience and the expected availability of funds under its credit facility.

#### Off Balance Sheet Assets and Obligations

As part of the BICC plc acquisition, BICC agreed to indemnify General Cable against environmental liabilities existing at the date of the closing of the purchase of the business. In the sale of the businesses to Pirelli, General Cable generally indemnified Pirelli against any environmental liabilities on the same basis as BICC plc indemnified the Company in the earlier acquisition. However, the indemnity the Company received from BICC plc related to the European business sold to Pirelli terminated upon the sale of those businesses to Pirelli. In addition, General Cable has agreed to indemnify Pirelli against any warranty claims relating to the prior operation of the business. General Cable agreed to indemnify Raychem HTS Canada, Inc., a business division of Tyco International, Ltd. for certain environmental liabilities existing at the date of the closing of the sale of the Company's former Pyrotenax business. General Cable has also agreed to indemnify Southwire Company against certain liabilities arising out of the operation of the business sold to Southwire prior to its sale.

#### Environmental Matters

The Company's expenditures for environmental compliance and remediation amounted to approximately \$1.4 million in 2004, \$0.8 million in 2003 and \$0.6 million in 2002. In addition, certain of General Cable's subsidiaries have been named as potentially responsible parties in proceedings that involve environmental remediation. The Company had accrued \$3.6 million at December 31, 2004 for all environmental liabilities. In the Wassall acquisition of General Cable from American

Premier Underwriters, American Premier indemnified the Company against certain environmental liabilities arising out of General Cable or its predecessors' ownership or operation of properties and assets, which were identified during the seven-year period, ended June 2001. As part of the 1999 acquisition, BICC plc agreed to indemnify General Cable against environmental liabilities existing at the date of the closing of the purchase of the business. The Company has agreed to indemnify Pirelli, Raychem HTS, Canada, Inc. and Southwire Company against certain environmental liabilities arising out of the operation of the divested businesses prior to the sale. However, the indemnity the Company received from BICC plc related to the business sold to Pirelli terminated upon the sale of those businesses to Pirelli. While it is difficult to estimate future environmental liabilities, the Company does not currently anticipate any material adverse effect on results of operations, cash flows or financial position as a result of compliance with federal, state, local or foreign environmental laws or regulations or remediation costs.

#### **Item 7A. Quantitative and Qualitative Disclosures about Market Risk**

General Cable is exposed to various market risks, including changes in interest rates, foreign currency and commodity prices. To manage risk associated with the volatility of these natural business exposures, General Cable enters into interest rate, commodity and foreign currency derivative agreements as well as copper and aluminum forward pricing agreements. General Cable does not purchase or sell derivative instruments for trading purposes. General Cable does not engage in trading activities involving commodity contracts for which a lack of marketplace quotations would necessitate the use of fair value estimation techniques.

General Cable's reported net sales are directly influenced by the price of copper and to a lesser extent aluminum. The price of copper and aluminum has been subject to considerable volatility, with the daily selling price of copper cathode on the COMEX averaging \$1.29 per pound in 2004, \$0.81 per pound in 2003 and \$0.72 per pound in 2002 and the daily price of aluminum rod averaging \$0.85 per pound in 2004, \$0.69 per pound in 2003 and \$0.65 per pound in 2002.

General Cable utilizes the last-in first-out (LIFO) method of inventory accounting for its metals inventory. The Company's use of the LIFO method results in its income statement reflecting the current costs of metals, while metals inventories in the balance sheet are valued at historical costs as the LIFO layers were created. As a result of volatile copper prices, the replacement cost of the Company's copper inventory exceeded the historic LIFO cost by approximately \$38 million at December 31, 2004 and \$13 million at December 31, 2003. If LIFO inventory quantities were reduced in a period when the replacement cost of the inventory exceeded the LIFO value, the Company would experience an increase in reported margins. Conversely, if LIFO inventory quantities were reduced in a period when replacement costs were lower than the LIFO value of the inventory, the Company would experience a decline in reported margins. If the Company were not able to recover the LIFO value of its inventory at a profit in some future period when replacement costs were lower than the LIFO value of the inventory, the Company would be required to take a charge to recognize in its income statement all or a portion of the higher LIFO value of the inventory.

General Cable has utilized interest rate swaps and interest rate collars to manage its interest expense exposure by fixing its interest rate on a portion of the Company's floating rate debt. Under the swap agreements, General Cable typically pays a fixed rate while the counterparty pays to General Cable the difference between the average fixed rate and the three-month LIBOR rate. During 2001, the Company entered into several interest rate swaps which effectively fixed interest rates for borrowings under the former credit facility and other debt. In the fourth quarter of 2003 in conjunction with the refinancing of its bank debt, the Company incurred a cost of \$0.8 million to terminate the interest rate swaps related to the former credit facility. At December 31, 2004, the remaining outstanding interest rate swap had a notional value of \$9.0 million, an interest rate of 4.49% and matures in October 2011. The Company does not provide or receive any collateral specifically for this contract. The fair value of interest rate derivatives are based on quoted market prices and third party provided calculations, which reflect the present values of the difference between estimated future variable-rate receipts and future fixed-rate payments. At December 31, 2004 and 2003, the net unrealized loss on interest rate derivatives and the related carrying value was \$(0.7) million. A 10% change in the variable rate would change the unrealized loss by \$0.2 million in 2004. All interest rate derivatives are marked-to-market with changes in the fair value of qualifying cash flow hedges recorded as other comprehensive income.

The Company enters into forward exchange contracts principally to hedge the currency fluctuations in certain transactions denominated in foreign currencies, thereby limiting the Company's risk that would otherwise result from changes in exchange rates. Principal transactions hedged during the year were firm sales and purchase commitments. The fair value of foreign currency contracts represents the amount required to enter into offsetting contracts with similar remaining maturities based on quoted market prices. At December 31, 2004 and 2003, the net unrealized loss on the net foreign currency contracts was \$(0.6) million and \$(0.8) million, respectively. A 10% change in the exchange rate for these currencies would change the unrealized loss by \$5.0 million in 2004.

Outside of North America, General Cable enters into commodity futures contracts for the purchase of copper and aluminum for delivery in a future month to match certain sales transactions. At December 31, 2004 and 2003, General Cable had an



unrealized gain of \$3.5 million and \$0.1 million respectively, on the commodity futures. A 10% change in the price of copper and aluminum would result in a change in the unrealized gain of \$5.2 million in 2004.

The notional amounts and fair values of these financial instruments at December 31, 2004 and 2003 are shown below (in millions). The net carrying amount of the financial instruments was a net asset of \$2.2 million at December 31, 2004 and a net liability of \$1.4 million at December 31, 2003.

	2004		2003	
	Notional Amount	Fair Value	Notional Amount	Fair Value
Interest rate swap	\$ 9.0	\$(0.7)	\$ 9.0	\$(0.7)
Foreign currency forward exchange	33.6	(0.6)	38.4	(0.8)
Commodity futures	48.8	3.5	13.6	0.1
		<u>\$ 2.2</u>		<u>\$(1.4)</u>

In the normal course of business, General Cable enters into forward pricing agreements for purchase of copper and aluminum for delivery in a future month to match certain sales transactions. At December 31, 2004 and 2003, General Cable had an unrealized gain of \$7.2 million and \$2.4 million, respectively. General Cable expects the unrealized gains under these agreements to be offset as a result of firm sales price commitments with customers.

#### Item 8. Financial Statements and Supplementary Data

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#### Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

#### Item 9A. Controls and Procedures

##### *Disclosure Controls and Procedures*

The Company maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed in the Company's reports under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to management, including the Company's Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), as appropriate, to allow timely decisions regarding required disclosure. The Company periodically reviews the design and effectiveness of its disclosure controls and internal control over financial reporting. The Company makes modifications to improve the design and effectiveness of its disclosure controls and internal control structure, and may take other corrective action, if its reviews identify a need for such modifications or actions.

A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

In connection with the preparation of this Annual Report on Form 10-K, as of December 31, 2004, an evaluation was performed under the supervision and with the participation of the Company's management, including the CEO and CFO, of the effectiveness of the design and operation of the Company's disclosure controls and procedures (as defined in Rule 13a-15(e) and 15d-15(e) under the Exchange Act). As disclosed in the Company's Form 8-K filed on March 16, 2005, the

Company has concluded that control deficiencies in its internal control over financial reporting as of December 31, 2004 constitute material weaknesses within the meaning of the Public Company Accounting Oversight Board's Auditing Standard No. 2. Based on that evaluation, the Company's CEO and CFO concluded that the Company's disclosure controls and procedures were not effective as of December 31, 2004. The material weaknesses, which have been identified and reported to the Company's Audit Committee, relate to the following:

- Control environment weaknesses, including access to computer applications, segregation of duties with respect to both its manual and computer based business processes and sufficiency of personnel with appropriate qualifications and training in certain key accounting roles in order to complete and document the monthly and quarterly financial closing processes.
- Control procedures over inventory shipping and recognition of revenue in the proper accounting period.
- Control procedures over receiving transactions and the recording of non-purchase order based accounts payable transactions in the proper accounting period.
- Controls over the liability estimation and accrual process.
- Controls over finished goods inventory on consignment at customer locations.
- The design and effectiveness of internal controls over accounting for fixed assets, including returnable shipping reels.
- Design of controls relating to purchasing procedures at Company headquarters and the maintenance of vendor master files.

Management, with oversight from the Audit Committee, has been addressing all of these issues aggressively and is committed to effectively remediating known weaknesses as expeditiously as possible. Although the Company's remediation efforts are well underway, control weaknesses will not be considered remediated until new internal controls over financial reporting are implemented and operational for a period of time and are tested, and management and its independent registered public accounting firm conclude that these controls are operating effectively.

#### *Changes in internal control over financial reporting*

In connection with the implementation of the provisions of Section 404 of Sarbanes-Oxley, the Company made various improvements to its system of internal control. Management continues to review, revise and improve the effectiveness of the Company's internal controls including strengthening controls over those material weaknesses noted above. Management has made no significant changes in the Company's internal controls over financial reporting in connection with its fourth quarter evaluation that would materially affect, or are reasonably likely to materially affect, its internal control over financial reporting.

#### *Management's Annual Report on Internal Control over Financial Reporting and Attestation Report of our Independent Registered Public Accounting Firm*

Management's Report on Internal Control over Financial Reporting and the Attestation Report of the Company's Independent Registered Public Accounting Firm thereon will be filed by amendment to this Annual Report on Form 10-K not later than 45 days after March 16, 2005, as permitted by SEC Release No. 34-50754 (November 30, 2004), "Order Under Section 36 of the Securities Exchange Act of 1934 Granting an Exemption From Specified Provisions of Exchange Act Rules 13a-1 and 15d-1." If any other material weaknesses were to be identified between the date of this Form 10-K filing and the filing of the amendment to the Form 10-K which will include the Section 404 certification, they would be disclosed in the amended Form 10-K and the Company's Section 404 certification.

#### **Item 9B. Other Information**

None.

### PART III.

#### Item 10. Directors and Executive Officers of the Registrant

General Cable's amended and restated by-laws provide that its board of directors is divided into three classes (Class I, Class II and Class III). At each annual meeting of the shareholders, directors constituting one class are elected for a three-year term. Each of the directors will be elected to serve until a successor is elected and qualified or until such director's earlier resignation or removal.

The following table sets forth certain information concerning the directors and executive officers of General Cable on February 1, 2005.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Gregory B. Kenny	52	President, Chief Executive Officer and Class II Director
Christopher F. Virgulak	49	Executive Vice President, Chief Financial Officer and Treasurer
Robert J. Siverd	56	Executive Vice President, General Counsel and Secretary
John E. Welsh, III	53	Class I Director, Non-executive Chairman of the Board
Robert L. Smialek	60	Class II Director
Gregory E. Lawton	53	Class III Director
Craig P. Omtvedt	55	Class III Director

**Mr. Kenny** has been one of General Cable's directors since 1997 and has been President and Chief Executive Officer since August 2001. He served as President and Chief Operating Officer from May 1999 to August 2001. He served as Executive Vice President and Chief Operating Officer of General Cable from March 1997 to May 1999. From June 1994 to March 1997, he was Executive Vice President of General Cable's immediate predecessor. He is also a director of Com Products International, Inc. (NYSE: CPO) and IDEX Corporation (NYSE: IEX).

**Mr. Virgulak** has been Executive Vice President, Chief Financial Officer and Treasurer since October 2002. From June 2000 to October 2002, he was Executive Vice President and Chief Financial Officer. He served as Executive Vice President, Chief Financial Officer and Treasurer from March 1997 to June 2000. From October 1994 until March 1997, he was Executive Vice President, Chief Financial Officer and Treasurer of the predecessor company.

**Mr. Siverd** has served as Executive Vice President, General Counsel and Secretary of General Cable since March 1997. From July 1994 until March 1997, he was Executive Vice President, General Counsel and Secretary of the predecessor company.

**Mr. Welsh** has been one of the Company's directors since 1997 and is Non-executive Chairman of the Board and a member of the Audit Committee, Compensation Committee and Corporate Governance Committee. He is currently President of Avalon Capital Partners, LLC, an investment firm focused on private equity and venture capital investments. From October 2000 to December 2002, he was a Managing Director of CIP Management LLC, the management company for Continuation Investments Group Inc. From November 1992 to December 1999, he served as Managing Director and Vice-Chairman of the board of directors of SkyTel Communications, Inc. and as a Director of SkyTel from September 1992 until December 1999. Prior to 1992, Mr. Welsh was a Managing Director in the Investment Banking Division of Prudential Securities, Inc.

**Mr. Smialek** has been one of the Company's directors since 1998 and is Chairman of the Compensation Committee and a member of the Audit Committee and Corporate Governance Committee. He was formerly President and Chief Executive Officer of Applied Innovation, Inc. (NASDAQ: AINN) from July 2000 until August 2002. From May 1993 until June 1999, he was the Chairman, President and Chief Executive Officer of Insilco Corporation (The Pink Sheets: INSL), a diversified manufacturing company based in Dublin, Ohio.

**Mr. Lawton** has been one of the Company's directors since 1998. He is Chairman of the Corporate Governance Committee and member of the Audit Committee and Compensation Committee. Since October 2000, Mr. Lawton has been President and Chief Executive Officer of Johnson Diversey, Inc., a supplier of cleaning and hygiene solutions. From January 1999 until September 2000, he was President and Chief Operating Officer of Johnson Wax Professional. Prior to joining Johnson Wax, Mr. Lawton was President of NuTone Inc., a subsidiary of Williams plc based in Cincinnati, Ohio, from 1994 to 1998. From 1989 to 1994, Mr. Lawton served with The Procter & Gamble Company (NYSE: PG) where he was Vice President and General Manager of several consumer product groups. Mr. Lawton is a director of Johnson Outdoor Inc. (NASDAQ: JOUT).

**Mr. Omtvedt** has been one of the Company's directors since August 2004 and is Chairman of the Audit Committee and a member of the Compensation Committee and Corporate Governance Committee. Mr. Omtvedt has been Senior Vice

President and Chief Financial Officer of Fortune Brands, Inc. (NYSE: FO) since 2000. He has been with Fortune Brands, Inc. since 1989 and served in positions of increasing responsibility, including Senior Vice President and Chief Accounting Officer, before assuming his current position in January 2000. Before joining Fortune Brands, Mr. Omtvedt worked for Pillsbury Company from 1985 to 1989 in various audit and controller roles.

The Board of Directors of the Company has determined that Craig P. Omtvedt, Chairman of the Audit Committee, and Audit Committee members, Mr. Welsh, Mr. Lawton and Mr. Smialek, are audit committee financial experts as defined by Item 401(h) of Regulation S-K and are independent within the meaning of Item 7(d)(3)(iv) of Schedule 14A under the Exchange Act.

The Company has adopted a Code of Business Conduct and Ethics that applies to its directors, officers (including the Company's principal executive officer, principal financial officer and principal accounting officer) and employees. The Company has also adopted Corporate Governance Principles and Guidelines, an Audit Committee Charter, a Compensation Committee Charter and a Corporate Governance Committee Charter (collectively "Charters"). Copies of the Code of Business Conduct and Ethics, Corporate Governance Principles and Guidelines and each of the Charters are available on the Company's website, [www.generalcable.com](http://www.generalcable.com), and may be found under the "Investor Information" section by clicking on "Corporate Governance". The Company intends to satisfy the disclosure requirement under Item 10 of Form 8-K regarding an amendment to, or waiver from, a provision of our Code of Ethics by posting such information on our website at the location specified above.

On May 11, 2004, the Company submitted its Annual Chief Executive Officer Certification to the New York Stock Exchange as required by Section 303A.12 (a) of the New York Stock Exchange Listed Company Manual.

The Chief Executive Officer and Chief Financial Officer Certifications required under Section 302 of the Sarbanes-Oxley Act are filed as exhibits to the Company's Form 10-K.

Except as set forth above, the additional information required by this item is included in the definitive Proxy Statement which General Cable intends to file with the Securities and Exchange Commission within 120 days after December 31, 2004, and is incorporated herein by reference.

#### **Item 11. Executive Compensation**

The information required by this item is included in the definitive Proxy Statement which General Cable intends to file with the Securities and Exchange Commission within 120 days after December 31, 2004, and is incorporated herein by reference.

#### **Item 12. Security Ownership of Certain Beneficial Owners and Management**

The information required by this item is included in the definitive Proxy Statement which General Cable intends to file with the Securities and Exchange Commission within 120 days after December 31, 2004, and is incorporated herein by reference.

#### **Item 13. Certain Relationships and Related Transactions**

The information required by this item is included in the definitive Proxy Statement which General Cable intends to file with the Securities and Exchange Commission within 120 days after December 31, 2004, and is incorporated herein by reference.

#### **Item 14. Principal Accounting Fees and Services**

The information required by this item is included in the definitive Proxy Statement which General Cable intends to file with the Securities and Exchange Commission within 120 days after December 31, 2004, and is incorporated herein by reference.

## PART IV.

### Item 15. Exhibits and Financial Statement Schedules

- (a) Documents filed as part of the Form 10-K:
1. Financial Statements are included in Part II, Item 8.
  2. Financial Statement Schedules filed herewith for 2004, 2003 and 2002:

II. Valuation and Qualifying Accounts

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All other schedules for which provisions are made in the applicable regulation of the Securities and Exchange Commission have been omitted as they are not applicable, not required, or the required information is included in the consolidated financial statements or notes thereto.

3. Exhibits as required by Item 601 of the Regulation S-K are listed below.

<u>Exhibit Number</u>	<u>Description</u>
3.1	Amended and Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to the Registration Statement on Form S-1 (File No. 333-22961) of the Company filed with the Securities and Exchange Commission on March 7, 1997, as amended (the "Initial S-1").
3.2	Amended and Restated By-Laws of the Company (incorporated by reference to Exhibit 3.2 to the Initial S-1).
4.1	Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 to the Initial S-1).
4.2	Certificate of Designations (incorporated by reference to Exhibit 4.1 to the Form 8-K filed December 12, 2003).
4.3	Indenture among the Company, certain guarantors and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Form 8-K filed December 12, 2003).
4.4	Registration Rights Agreement among the Company and the Initial Purchasers relating to the Series A Redeemable Convertible Preferred Stock (incorporated by reference to Exhibit 4.3 to the Form 8-K filed December 12, 2003).
4.5	Registration Rights Agreement among the Company, certain guarantors and the Initial Purchasers relating to the Notes (incorporated by reference to Exhibit 4.4 to the Form 8-K filed December 12, 2003).
10.2	General Cable Corporation 1998 Annual Incentive Plan (incorporated by reference to Exhibit 10.2 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 1997).
10.3	General Cable Corporation 1997 Stock Incentive Plan (incorporated by reference to Exhibit 10.4 to the Initial S-1).
10.4	General Cable Corporation 1997 Stock Incentive Plan, as amended (incorporated by reference to Exhibit 10.4 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 1997).
10.7	Employment Agreement dated May 13, 1997, between Gregory B. Kenny and the Company (incorporated by reference to Exhibit 10.6 to the Initial S-1).
10.8	Amendment dated March 16, 1998 to Employment Agreement dated May 13, 1997, between Gregory B. Kenny and the Company (incorporated by reference to Exhibit 10.8 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 1997).
10.9	Employment dated May 13, 1997, between Christopher F. Virgulak and the Company (incorporated by reference to Exhibit 10.7 to the Initial S-1).
10.10	Employment Agreement dated May 13, 1997, between Robert J. Siverd and the Company (incorporated by reference to Exhibit 10.10 to the Initial S-1).
10.12	Change-in-Control Agreement dated May 13, 1997, between Gregory B. Kenny and the Company (incorporated by reference to Exhibit 10.10 to the Initial S-1).
10.13	Change-in-Control Agreement dated May 13, 1997, between Christopher F. Virgulak and the Company (incorporated by reference to Exhibit 10.11 to the Initial S-1).
10.14	Change-in-Control Agreement dated May 13, 1997, between Robert J. Siverd and the Company (incorporated by reference to Exhibit 10.12 to the Initial S-1).
10.15	Form of Intercompany Agreement among Wassall PLC, Netherlands Cable V.B. and the Company (incorporated by reference to Exhibit 10.14 to the Initial S-1).
10.16	Stock Purchase Agreement dated May 13, 1997, among Wassall PLC, General Cable Industries Inc. and the Company (incorporated by reference to Exhibit 10.15 to the Initial S-1).
10.17	General Cable Corporation Deferred Compensation Plan dated April 1, 1996 (incorporated by reference to Exhibit 10.17 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 1998).
10.18	Amended and Restated General Cable Corporation Deferred Compensation Plan dated December 14, 1998 (incorporated by reference to Exhibit 10.18 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 1998).
10.19	Credit Agreement between the Company, Chase Manhattan Bank, as Administrative Agent, and the lenders

- signatory thereto dated May 28, 1999 (incorporated by reference to Exhibit 10.19 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended September 30, 1999).
- 10.20 Amendment dated October 8, 1999 to the Credit Agreement between the Company, Chase Manhattan Bank, as Administrative Agent, and the lenders signatory thereto dated May 28, 1999 (incorporated by reference to Exhibit 10.20 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended September 30, 1999).
- 10.22 Employment Agreement dated October 18, 1999, between Gregory B. Kenny and the Company (incorporated by reference to Exhibit 10.22 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended September 30, 1999).
- 10.23 Employment Agreement dated October 18, 1999, between Christopher F. Virgulak and the Company (incorporated by reference to Exhibit 10.23 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended September 30, 1999).
- 10.24 Employment Agreement dated October 18, 1999, between Robert J. Siverd and the Company (incorporated by reference to Exhibit 10.24 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended September 30, 1999).
- 10.26 Change-in-Control Agreement dated October 18, 1999 between Gregory B. Kenny and the Company (incorporated by reference to Exhibit 10.26 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended September 30, 1999).
- 10.27 Change-in-Control Agreement dated October 18, 1999 between Christopher F. Virgulak and the Company (incorporated by reference to Exhibit 10.27 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended September 30, 1999).
- 10.28 Change-in-Control Agreement dated October 18, 1999 between Robert J. Siverd and the Company (incorporated by reference to Exhibit 10.28 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended September 30, 1999).
- 10.29 BICCGeneral Supplemental Executive Retirement Plan dated December 15, 1999 (incorporated by reference to Exhibit 10.29 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 1999).
- 10.30 BICCGeneral Mid-Term Incentive Plan dated February 1, 2000 (incorporated by reference to Exhibit 10.30 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 1999).
- 10.31 Share Purchase Agreement between General Cable Corporation and Pirelli Cavi e Sistemi S.p.A. dated February 9, 2000 (incorporated by reference to Exhibit 10.31 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 1999).
- 10.32 Second amendment dated March 9, 2000 to the Credit Agreement between the Company, Chase Manhattan Bank, as Administrative Agent, and the lenders signatory thereto dated May 28, 1999 (incorporated by reference to Exhibit 10.32 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended March 31, 2000).
- 10.33 Amended and Restated Employment Agreement dated April 28, 2000, Stephen Rabinowitz and the Company (incorporated by reference to Exhibit 10.33 to the Quarterly report on Form 10-Q of General Cable Corporation for the quarterly period ended March 31, 2000).
- 10.34 Amended and Restated Employment Agreement dated April 28, 2000, between Gregory B. Kenny and the Company (incorporated by reference to Exhibit 10.34 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended March 31, 2000).
- 10.35 Amended and Restated Employment Agreement dated April 28, 2000, between Christopher F. Virgulak and the Company (incorporated by reference to Exhibit 10.35 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended March 31, 2000).
- 10.36 Amended and Restated Employment Agreement dated April 28, 2000, between Robert J. Siverd and the Company (incorporated by reference to Exhibit 10.36 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended March 31, 2000).
- 10.38 Amended and Restated Change-in-Control Agreement dated April 28, 2000 between Gregory B. Kenny and the Company (incorporated by reference to Exhibit 10.38 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period end March 31, 2000).
- 10.39 Amended and Restated Change-in-Control Agreement dated April 28, 2000, between Christopher F. Virgulak and the Company (incorporated by reference to Exhibit 10.39 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended March 31, 2000).
- 10.40 Amended and Restated Change-in-Control Agreement dated April 28, 2000 between Robert J. Siverd and the Company (incorporated by reference to Exhibit 10.40 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended March 31, 2000).
- 10.41 Third amendment dated January 24, 2001 to the Credit Agreement between the Company, Chase Manhattan Bank, as Administrative Agent, and the lenders signatory thereto dated May 28, 1999 (incorporated by reference to

- Exhibit 10.41 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2000).
- 10.42 General Cable Corporation 2000 Stock Option Plan (incorporated by reference to Exhibit 10.42 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2000).
- 10.43 Asset Purchase Agreement between Southwire Company and General Cable Industries, Inc. and General Cable Corporation dated September 5, 2001 (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period end September 30, 2001).
- 10.44 Term Sheet dated August 7, 2001, for Retirement and Termination of Employment Agreement dated October 18, 1999, as Amended, between General Cable Corporation and Stephen Rabinowitz (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended September 30, 2001).
- 10.45 Amendment dated August 6, 2001, to Employment Agreement between Gregory B. Kenny and General Cable Corporation (incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended September 30, 2001).
- 10.46 Amendment dated August 6, 2001, to Change-in-Control Agreement between Gregory B. Kenny and General Cable Corporation (incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended September 30, 2001).
- 10.47 Master Pooling and Servicing Agreement, dated as of May 9, 2001, among General Cable Capital Funding, Inc., General Cable Industries, Inc. and The Chase Manhattan Bank (incorporated by reference to Exhibit 10.47 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2001).
- 10.48 Series 2001-1 Supplement to Master Pooling and Servicing Agreement, dated as of May 9, 2001, among General Cable Capital Funding, Inc., General Cable Industries, Inc. and The Chase Manhattan Bank (incorporated by reference to Exhibit 10.48 to the Annual Report on Form 10-K of General Cable Corporation for year ended December 31, 2001).
- 10.49 Series VFC Supplement to Master Pooling and Servicing Agreement, dated as of May 9, 2001, among General Cable Capital Funding, Inc., General Cable Industries, Inc. and The Chase Manhattan Bank (incorporated by reference to Exhibit 10.49 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2001).
- 10.50 Receivables Sale Agreement, dated as of May 9, 2001, between General Cable Industries, Inc. and General Cable Capital Funding, Inc. (incorporated by reference to Exhibit 10.50 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2001).
- 10.51 First amendment dated December 21, 2001 to the Series 2001-1 Supplement to Master Pooling and Servicing Agreement dated as of May 9, 2001, (incorporated by reference to Exhibit 10.51 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2001).
- 10.52 Amendment dated April 19, 2002 to the Credit Agreement between the Company, JP Morgan Chase Bank, as Administrative Agent, and the lenders signatory thereto dated May 28, 1999 (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended March 31, 2002).
- 10.53 Fifth Amendment dated October 11, 2002 to the Credit Agreement between the Company, JP Morgan Chase Bank, as Administrative Agent, and the lenders signatory thereto dated May 28, 1999 (incorporated by reference to Form 8-K filed on October 14, 2002).
- 10.54 Sixth Amendment dated December 26, 2002 to the Credit Agreement between the Company, JP Morgan Chase Bank, as Administrative Agent, and the lenders signatory thereto dated May 28, 1999 (incorporated by reference to exhibit 10.54 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2002).
- 10.55 General Cable Corporation 2000 Stock Option Plan, amended and restated as of July 30, 2002 (incorporated by reference to exhibit 10.55 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2002).
- 10.56 Amendment No. 2 dated July 11, 2003 to Employment Agreement dated April 28, 2000 between Gregory B. Kenny and the Company (incorporated by reference to exhibit 10.56 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended June 30, 2003).
- 10.57 Amendment No. 1 dated July 11, 2003 to Employment Agreement dated April 28, 2000 between Christopher F. Virgulak and the Company (incorporated by reference to exhibit 10.57 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended June 30, 2003).
- 10.58 Amendment No. 1 dated July 11, 2003 to Employment Agreement dated April 28, 2000 between Robert J. Siverd and the Company (incorporated by reference to exhibit 10.58 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarterly period ended June 30, 2003).
- 10.59 Assignment Agreement dated June 9, 2003 by Gregory B. Kenny to General Cable Corporation (incorporated by reference to exhibit 10.59 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2003).

- 10.60 Assignment Agreement dated June 9, 2003 by Christopher F. Virgulak to General Cable Corporation (incorporated by reference to exhibit 10.60 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2003).
- 10.61 Assignment Agreement dated June 9, 2003 by Robert J. Siverd to General Cable Corporation (incorporated by reference to exhibit 10.61 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2003).
- 10.62 Trust Termination Agreement for General Cable 2001 Master Trust dated November 24, 2003 (incorporated by reference to exhibit 10.62 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2003).
- 10.63 Credit Agreement between the Company, Merrill Lynch Capital as Collateral and Syndication Agent, UBS AG as Administrative Agent and the lenders signatory thereto dated November 24, 2003 (incorporated by reference to exhibit 10.63 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2003).
- 10.64 Code of Business Conduct and Ethics dated December 16, 2003 (incorporated by reference to exhibit 10.64 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2003).
- 10.65 Corporate Governance Principles and Guidelines dated January 2004 (incorporated by reference to exhibit 10.65 to the Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2003).
- 10.66 First Amendment dated April 14, 2004, to the Credit Agreement between the Company, Merrill Lynch Capital as Collateral and Syndication Agent, UBS AG as Administrative Agent and the lenders signatory thereto dated November 24, 2003 (incorporated by reference to exhibit 10.66 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarter ended March 31, 2004).
- 10.67 Form of Grant Agreement pursuant to the General Cable Corporation 1997 Stock Incentive Plan (incorporated by reference to exhibit 10.67 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarter ended October 1, 2004).
- 10.68 Form of Grant Agreement pursuant to the General Cable Corporation 2000 Stock Option Plan (incorporated by reference to exhibit 10.68 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarter ended October 1, 2004).
- 10.69 Amended and restated Credit Agreement dated October 22, 2004, between the Company and Merrill Lynch Capital as collateral and syndication agent, UBS AG as Administrative Agent and the lenders signatory thereto (incorporated by reference to exhibit 10.69 to the Quarterly Report on Form 10-Q of General Cable Corporation for the quarter ended October 1, 2004).
- 12.1 Computation of Ratio of Earnings to Fixed Charges.
- 21.1 List of Subsidiaries of General Cable.
- 23.1 Consent of Deloitte & Touche LLP.
- 31.1 Certification of Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certification pursuant to 18 U.S.C. §1350, as adopted under Section 906 of the Sarbanes-Oxley Act of 2002.



## Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, General Cable Corporation has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

General Cable Corporation

Signed: March 30, 2005

By: /s/ GREGORY B. KENNY  
Gregory B. Kenny  
President, Chief Executive Officer  
and Director

<u>/s/ ROBERT J. SIVERD</u> Robert J. Siverd	Executive Vice President, General Counsel and Secretary	March 30, 2005
<u>/s/ CHRISTOPHER F. VIRGULAK</u> Christopher F. Virgulak	Executive Vice President, Chief Financial Officer and Treasurer (Chief Accounting Officer)	March 30, 2005
<u>/s/ JOHN E. WELSH, III</u> John E. Welsh, III	Non-executive Chairman and Director	March 30, 2005
<u>/s/ GREGORY E. LAWTON</u> Gregory E. Lawton	Director	March 30, 2005
<u>/s/ CRAIG P. OMTVEDT</u> Craig P. Omtvedt	Director	March 30, 2005
<u>/s/ ROBERT L. SMIALEK</u> Robert L. Smialek	Director	March 30, 2005

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

### General Cable Corporation:

We have audited the accompanying consolidated balance sheets of General Cable Corporation and subsidiaries (the "Company") as of December 31, 2004 and 2003, and the related consolidated statements of operations, changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2004. Our audits also included the financial statement schedule listed in the Index at Item 15. These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of General Cable Corporation and subsidiaries as of December 31, 2004 and 2003, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2004, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

DELOITTE & TOUCHE LLP  
Cincinnati, Ohio  
March 30, 2005

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Consolidated Statements of Operations (in millions, except per share data)

	Year Ended December 31,		
	2004	2003	2002
Net sales	\$1,970.7	\$1,538.4	\$1,453.9
Cost of sales	1,756.0	1,365.0	1,287.3
Gross profit	214.7	173.4	166.6
Selling, general and administrative expenses	158.2	127.7	150.9
Operating income	56.5	45.7	15.7
Other income (expense)	(1.2)	1.5	-
Interest income (expense):			
Interest expense	(37.7)	(43.9)	(43.9)
Interest income	1.8	0.8	1.3
Other financial costs	-	(6.0)	(1.1)
	(35.9)	(49.1)	(43.7)
Income (loss) from continuing operations before income taxes	19.4	(1.9)	(28.0)
Income tax (provision) benefit	18.1	(2.9)	9.9
Income (loss) from continuing operations	37.5	(4.8)	(18.1)
Gain (loss) on disposal of discontinued operations (net of tax)	0.4	-	(5.9)
Net income (loss)	37.9	(4.8)	(24.0)
Less: preferred stock dividends	(6.0)	(0.6)	-
Net income (loss) applicable to common shareholders	\$ 31.9	\$ (5.4)	\$ (24.0)
<u>EPS of Continuing Operations</u>			
Earnings (loss) per common share	\$ 0.81	\$ (0.16)	\$ (0.55)
Weighted average common shares	39.0	33.6	33.0
Earnings (loss) per common share-assuming dilution	\$ 0.75	\$ (0.16)	\$ (0.55)
Weighted average common shares-assuming dilution	50.3	33.6	33.0
<u>EPS of Discontinued Operations</u>			
Gain (loss) per common share	\$ 0.01	\$ -	\$ (0.18)
Gain (loss) per common share-assuming dilution	\$ 0.01	\$ -	\$ (0.18)
<u>EPS including Discontinued Operations</u>			
Earnings (loss) per common share	\$ 0.82	\$ (0.16)	\$ (0.73)
Earnings (loss) per common share-assuming dilution	\$ 0.75	\$ (0.16)	\$ (0.73)

See accompanying Notes to Consolidated Financial Statements.

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Consolidated Balance Sheets (in millions, except share data)

	December 31,	
	2004	2003
<b><u>Assets</u></b>		
Current Assets:		
Cash	\$ 36.4	\$ 25.1
Receivables, net of allowances of \$16.0 million in 2004 and \$15.6 million in 2003	350.9	268.9
Inventories	315.5	256.7
Deferred income taxes	23.0	13.5
Prepaid expenses and other	38.8	24.9
Total current assets	764.6	589.1
Property, plant and equipment, net	356.0	333.3
Deferred income taxes	65.7	76.5
Other non-current assets	34.5	50.6
Total assets	<u>\$1,220.8</u>	<u>\$1,049.5</u>
<b><u>Liabilities and Shareholders' Equity</u></b>		
Current Liabilities:		
Accounts payable	\$ 357.4	\$ 250.6
Accrued liabilities	108.1	99.6
Current portion of long-term debt	1.1	2.3
Total current liabilities	466.6	352.5
Long-term debt	373.8	338.1
Deferred income taxes	15.3	9.6
Other liabilities	63.7	109.2
Total liabilities	<u>919.4</u>	<u>809.4</u>
Shareholders' Equity:		
Redeemable convertible preferred stock, 2,070,000 shares at redemption value (liquidation preference of \$50.00 per share)	103.5	103.5
Common stock, \$0.01 par value, issued and outstanding shares:		
2004 – 39,335,754 (net of 4,885,823 treasury shares)		
2003 – 38,908,512 (net of 4,828,225 treasury shares)	0.4	0.4
Additional paid-in capital	144.1	140.8
Treasury stock	(51.0)	(50.4)
Retained earnings	86.4	54.5
Accumulated other comprehensive income (loss)	22.4	(5.5)
Other shareholders' equity	(4.4)	(3.2)
Total shareholders' equity	<u>301.4</u>	<u>240.1</u>
Total liabilities and shareholders' equity	<u>\$1,220.8</u>	<u>\$1,049.5</u>

See accompanying Notes to Consolidated Financial Statements.

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Consolidated Statements of Cash Flows (in millions)

	Year Ended December 31,		
	2004	2003	2002
Cash flows of operating activities:			
Net income (loss)	\$37.9	\$(4.8)	\$(24.0)
Adjustments to reconcile net income (loss) to net cash provided by (used by) operating activities:			
Depreciation and amortization	35.4	33.4	30.6
Foreign currency exchange (gain) loss	1.2	(1.5)	-
Loss on joint venture wind-down	4.2	-	-
Deferred income taxes	0.6	(6.5)	14.4
Settlement of tax items	(23.3)	-	-
(Gain) loss on disposal of property and businesses	(0.5)	6.8	1.7
Changes in operating assets and liabilities, net of effect of acquisitions and divestitures:			
Purchase of receivables	-	(80.0)	-
(Increase) decrease in receivables	(63.7)	27.8	15.1
(Increase) decrease in inventories	(45.3)	16.9	61.5
(Increase) decrease in other assets	(12.8)	14.5	(8.0)
Increase (decrease) in accounts payable, accrued and other liabilities	78.8	(21.1)	(34.0)
Net cash flows of operating activities	12.5	(14.5)	57.3
Cash flows of investing activities:			
Capital expenditures	(37.0)	(19.1)	(31.4)
Proceeds from sale of businesses, net of cash sold	-	-	1.7
Proceeds from properties sold	2.6	2.5	1.6
Other, net	(1.9)	(3.1)	(1.9)
Net cash flows of investing activities	(36.3)	(19.7)	(30.0)
Cash flows of financing activities:			
Dividends paid	(6.0)	-	(5.0)
Common stock issued, net of fees and expenses	-	44.6	-
Preferred stock issued, net of fees and expenses	-	99.5	-
Repayment of loans from shareholders	0.4	1.0	-
Net change in revolving credit borrowings	35.6	(35.2)	(2.2)
Net change in other debt	(2.3)	(26.0)	4.0
Issuance of long-term debt, net of fees and expenses	-	276.6	-
Repayment of long-term debt	-	(333.3)	(15.4)
Proceeds from exercise of stock options	1.1	-	2.4
Net cash flows of financing activities	28.8	27.2	(16.2)
Effect of exchange rate changes on cash	6.3	3.0	1.4
Increase (decrease) in cash	11.3	(4.0)	12.5
Cash – beginning of period	25.1	29.1	16.6
Cash – end of period	\$36.4	\$25.1	\$29.1
<b>Supplemental Information</b>			
Cash paid (received) during the period for:			
Income tax payments, net of (refunds)	\$14.7	\$(12.7)	\$(27.0)
Interest paid	\$38.0	\$38.5	\$44.1
Non-cash investing and financing activities:			
Issuance of restricted stock	\$2.9	\$-	\$-

See accompanying Notes to Consolidated Financial Statements.

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Consolidated Statements of Changes in Shareholders' Equity (dollars in millions, share amounts in thousands)

	Preferred Stock		Common Stock		Add'l Paid in Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Income/ (Loss)	Other Shareholders' Equity	Total
	Shares	Amount	Shares	Amount						
<b>Balance, December 31, 2001</b>	-	\$ -	32,838	\$0.4	\$96.4	\$(50.0)	\$88.9	\$(25.7)	\$(5.1)	\$104.9
Comprehensive loss:										
Net loss							(24.0)			(24.0)
Foreign currency translation adjustment								11.2		11.2
Pension adjustments, net of \$16.1 tax benefit								(29.2)		(29.2)
Unrealized investment losses								(0.4)		(0.4)
Loss on change in fair value of financial instruments, net of \$0.2 tax benefit								(0.5)		(0.5)
Comprehensive loss										(42.9)
Amortization of restricted stock and other					0.9				0.1	1.0
Common stock dividends							(5.0)			(5.0)
Exercise of stock options			265		2.4					2.4
Other			32		0.3				0.2	0.5
<b>Balance, December 31, 2002</b>	-	\$ -	33,135	\$0.4	\$100.0	\$(50.0)	\$59.9	\$(44.6)	\$(4.8)	\$60.9
Comprehensive income:										
Net loss							(4.8)			(4.8)
Foreign currency translation adjustment								27.1		27.1
Pension adjustments, net of \$4.2 tax expense								7.3		7.3
Unrealized investment gain								1.2		1.2
Gain on change in fair value of financial instruments, net of \$1.9 tax expense								3.5		3.5
Comprehensive income										34.3
Preferred stock dividend							(0.6)			(0.6)
Amortization of restricted stock and other					0.4				0.1	0.5
Repayment of loans from shareholders			(74)		(0.4)	(0.4)			1.5	0.7
Issuance of preferred stock net of fees and expenses	2,070	103.5			(4.0)					99.5
Issuance of common stock net of fees and expenses			5,808		44.6					44.6
Other			40		0.2					0.2
<b>Balance, December 31, 2003</b>	2,070	\$103.5	38,909	\$0.4	\$140.8	\$(50.4)	\$54.5	\$(5.5)	\$(3.2)	\$240.1
Comprehensive income:										
Net income							37.9			37.9
Foreign currency translation adjustment								23.9		23.9
Pension adjustments, net of \$0.1 tax benefit								(0.2)		(0.2)
Unrealized investment gain								1.6		1.6
Gain on change in fair value of financial instruments, net of \$1.2 tax expense								2.6		2.6
Comprehensive income										65.8
Preferred stock dividend							(6.0)			(6.0)
Amortization of restricted stock and other									0.5	0.5
Repayment of loans from shareholders			(58)		(0.6)	(0.6)			1.2	-
Exercise of stock options			123		1.0					1.0
Issuance of restricted stock			341		2.9				(2.9)	-
Other			21		-					-
<b>Balance, December 31, 2004</b>	<u>2,070</u>	<u>\$103.5</u>	<u>39,336</u>	<u>\$0.4</u>	<u>\$144.1</u>	<u>\$(51.0)</u>	<u>\$86.4</u>	<u>\$22.4</u>	<u>\$(4.4)</u>	<u>\$301.4</u>

See accompanying Notes to Consolidated Financial Statements.

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements

#### 1. General

General Cable Corporation and subsidiaries (General Cable) is a leading global developer and manufacturer in the wire and cable industry. The Company sells copper, aluminum and fiber optic wire and cable products worldwide. The Company's operations are divided into three main segments: energy, industrial & specialty and communications. As of December 31, 2004, General Cable operated 26 manufacturing facilities in nine countries and two regional distribution centers in North America in addition to the corporate headquarters in Highland Heights, Kentucky.

#### 2. Summary of Significant Accounting Policies

##### *Principles of Consolidation*

The consolidated financial statements include the accounts of General Cable Corporation and its wholly-owned subsidiaries. Investments in 50% or less owned joint ventures are accounted for under the equity method of accounting. Other non-current assets included an investment in a fiber optics joint venture of \$3.5 million at December 31, 2003. The Company adopted FIN 46, as revised, "Consolidation of Variable Interest Entities", which resulted in the consolidation of the fiber optic joint venture in the first quarter of 2004. In the fourth quarter of 2004, the Company unwound the joint venture and as of December 31, 2004 owned 100% of the business. All transactions and balances among the consolidated companies have been eliminated.

##### *Reclassifications*

Certain reclassifications have been made to the prior year to conform to the current year's presentation.

##### *Use of Estimates*

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. These estimates are based on historical experience and information that is available to management about current events and actions the Company may take in the future. Significant items subject to estimates and assumptions include valuation allowances for sales incentives, accounts receivable, inventory and deferred income taxes; legal, environmental, asbestos and customer reel deposit liabilities; assets and obligations related to pension and other post-retirement benefits; and self insured workers compensation and health insurance reserves. There can be no assurance that actual results will not differ from these estimates.

##### *Revenue Recognition*

Revenue is recognized when goods are shipped to the customer, title and risk of loss are transferred, pricing is fixed or determinable and collectibility is reasonably assured. Most revenue transactions represent sales of inventory. A provision for payment discounts, product returns and customer rebates is estimated based upon historical experience and other relevant factors and is recorded within the same period that the revenue is recognized. Given the nature of the Company's business, revenue recognition practices do not contain estimates that materially affect results of operations.

##### *Earnings (Loss) Per Share*

Earnings (loss) per common share and loss per common share-assuming dilution are computed based on the weighted average number of common shares outstanding. Earnings per common share-assuming dilution are computed based on the weighted average number of common shares outstanding and the dilutive effect of stock options and restricted stock units outstanding and the assumed conversion of the Company's preferred stock, if applicable.

##### *Foreign Currency Translation*

For operations outside the United States that prepare financial statements in currencies other than the U.S. dollar, results of operations and cash flows are translated at average exchange rates during the period, and assets and liabilities are translated at spot exchange rates at the end of the period. Foreign currency translation adjustments are included as a separate component of accumulated other comprehensive income (loss) in shareholders' equity. The effects of changes in exchange rates between the designated functional currency and the currency in which a transaction is denominated are recorded as foreign currency transaction gains (losses). See further discussion in Note 4.

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements – (Continued)

#### *Inventories*

General Cable values all of its North American inventories and all of its non-North American metal inventories using the LIFO method and all remaining inventories using the first-in first-out (FIFO) method. Inventories are stated at the lower of cost or market value. The Company determines whether a lower of cost or market provision is required on a quarterly basis by computing whether inventory on hand, on a last-in first-out (LIFO) basis, can be sold at a profit based upon current selling prices less variable selling costs. No provision was required in 2004 or 2003. In the event that a provision is required in some future period, the Company will determine the amount of the provision by writing down the value of the inventory to the level where its sales, using current selling prices less variable selling costs, will result in a profit.

#### *Property, Plant and Equipment*

Property, plant and equipment are stated at cost. Costs assigned to property, plant and equipment relating to acquisitions are based on estimated fair values at that date. Depreciation is provided using the straight-line method over the estimated useful lives of the assets: new buildings, from 15 to 50 years; and machinery, equipment and office furnishings, from 3 to 15 years. Leasehold improvements are depreciated over the life of the lease. The Company's manufacturing facilities perform major maintenance activities during planned shutdown periods which traditionally occur in July and December. The costs related to these activities are accrued for evenly throughout the year.

#### *Goodwill*

Goodwill and intangible assets with indefinite useful lives are not amortized, but are reviewed annually for impairment. At December 31, 2003, the Company had no goodwill recorded on its balance sheet. During the first quarter of 2004, the Company began consolidating its fiber optic joint venture, which had \$1.9 million of goodwill. As part of the Company's business planning process in 2004, management determined that the initial business premise for the formation of the joint venture was not being realized and that the long-term prospects for the joint venture were significantly below previous expectations. Therefore, during the fourth quarter of 2004, the Company recorded a \$1.9 million charge for the write-off of this goodwill. The fair value of this business unit was estimated using the expected present value of future cash flows. There was no goodwill on the Company's balance sheet at December 31, 2004.

#### *Fair Value of Financial Instruments*

Financial instruments are defined as cash or contracts relating to the receipt, delivery or exchange of financial instruments. Except as otherwise noted, fair value approximates the carrying value of such instruments.

#### *Forward Pricing Agreements for Purchases of Copper and Aluminum*

In the normal course of business, General Cable enters into forward pricing agreements for purchases of copper and aluminum to match certain sales transactions. At December 31, 2004 and 2003, General Cable had \$62.4 million and \$30.5 million, respectively, of future copper and aluminum purchases that were under forward pricing agreements. The fair market value of the forward pricing agreements was \$69.6 million and \$32.9 million at December 31, 2004 and 2003, respectively. General Cable expects to recover the cost of copper and aluminum under these agreements as a result of firm sales price commitments with customers.

#### *Concentration of Credit Risk*

General Cable sells a broad range of products throughout primarily the United States, Canada, Europe and the Asia Pacific region. Concentrations of credit risk with respect to trade receivables are limited due to the large number of customers, including members of buying groups, composing General Cable's customer base. Ongoing credit evaluations of customers' financial condition are performed, and generally, no collateral is required. General Cable maintains reserves for potential credit losses and such losses, in the aggregate, have not exceeded management's estimates. Certain subsidiaries also maintain credit insurance for certain customer balances.

#### *Derivative Financial Instruments*

Derivative financial instruments are utilized to manage interest rate, commodity and foreign currency risk. General Cable does not hold or issue derivative financial instruments for trading purposes. Statement of Financial Accounting Standards (SFAS) No. 133, "Accounting For Derivative Instruments and Hedging Activities," as amended, requires that all derivatives be recorded on the balance sheet at fair value. The accounting for changes in the fair value of the derivative depends on the intended use of the derivative and whether it qualifies for hedge accounting. SFAS No. 133, as applied to General Cable's risk management strategies, may increase or decrease reported net income, and stockholders' equity, or both, prospectively depending on changes in interest rates and other variables affecting the fair value of derivative instruments and hedged items, but will have no effect on cash flows or economic risk. See further discussion in Note 12.



## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

General Cable has entered into interest rate swap and collar agreements designed to hedge underlying debt obligations. During the fourth quarter of 2003, the Company incurred a cost of \$0.8 million for the termination of interest rate swaps as a result of the refinancing of the Company's bank debt.

Foreign currency and commodity contracts are used to hedge future sales and purchase commitments. Unrealized gains and losses on such contracts are recorded in other comprehensive income until the underlying transaction occurs and is recorded in the income statement at which point such amounts included in other comprehensive income are recognized in income which generally will occur over periods less than one year.

#### *Accounts Receivable Securitization*

The Company accounted for the securitization of accounts receivable in accordance with SFAS No. 140, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities, a replacement of FASB Statement No. 125." At the time the receivables were sold, the balances were removed from the Consolidated Balance Sheet. This statement modified certain standards for the accounting of transfers of financial assets and also required expanded financial statement disclosures related to securitization activities. During the fourth quarter of 2003, this securitization financing was terminated in connection with the refinancing of the Company's bank debt. See further discussion in Note 6.

#### *Stock-Based Compensation*

SFAS No. 123, "Accounting for Stock-Based Compensation," encourages, but does not require, companies to record compensation cost for stock-based employee compensation plans at fair value. General Cable has chosen to continue to account for stock-based compensation using the intrinsic value method prescribed in Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," and related interpretations. Accordingly, compensation cost for stock options is measured as the excess, if any, of the quoted market price of the Company's stock at the date of the grant over the amount an employee must pay to acquire the stock. No compensation cost for stock options is reflected in net income, as all options granted had an exercise price equal to the market value of the underlying common stock on the date of grant. The following table illustrates the effect on net income and earnings per share if the Company had applied the fair value recognition provisions of SFAS No. 123 to stock-based employee compensation.

	Year Ended December 31,		
	2004	2003	2002
Net income (loss) as reported	\$37.9	\$ (4.8)	\$(24.0)
Less: preferred stock dividends	(6.0)	(0.6)	-
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(2.2)	(2.2)	(2.4)
Pro forma net income (loss) for basic EPS computation	<u>\$29.7</u>	<u>\$ (7.6)</u>	<u>\$(26.4)</u>
Net income (loss) as reported	\$37.9	\$ (4.8)	\$(24.0)
Less: preferred stock dividends, if applicable	n/a	(0.6)	-
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(2.2)	(2.2)	(2.4)
Pro forma net income (loss) for diluted EPS computation	<u>\$35.7</u>	<u>\$ (7.6)</u>	<u>\$(26.4)</u>
Earnings (loss) per share:			
Basic — as reported	\$0.82	\$(0.16)	\$(0.73)
Basic — pro forma	\$0.76	\$(0.23)	\$(0.80)
Diluted — as reported	\$0.75	\$(0.16)	\$(0.73)
Diluted — pro forma	\$0.71	\$(0.23)	\$(0.80)

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

These proforma amounts may not be representative of future disclosures because the estimated fair value of stock options is amortized to expense over the vesting period, and additional options may be granted in future years. In determining the proforma amounts above, the fair value of each option was estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions:

	<u>2004</u>	<u>2003</u>	<u>2002</u>
Risk-free interest rate	4.0%	3.6%	3.2%
Expected dividend yield	N/A	N/A	1.5%
Expected option life	6.5 years	6.5 years	6.5 years
Expected stock price volatility	40.9%	70.1%	95.7%
Weighted average fair value of options granted	\$4.16	\$2.72	\$9.58

#### ***New Standards***

In December 2004, SFAS No. 123(R), "Share-Based Payment" was issued. This statement will require compensation costs related to share-based payment transactions to be recognized in the financial statements. With limited exceptions, the amount of compensation cost will be measured based on the grant date fair value of the equity instruments issued. Compensation cost will be recognized over the period that an employee provides service in exchange for the award. SFAS No. 123 (R) replaces SFAS No. 123 and supersedes APB Opinion No. 25. SFAS No. 123 (R) is effective for fiscal quarters beginning after June 15, 2005. The Company is currently evaluating the impact of adopting SFAS No. 123 (R) on its consolidated financial position, results of operations and cash flows.

In November 2004, SFAS No. 151, "Inventory Costs, an amendment of ARB No. 43, Chapter 4" was issued. This statement clarifies the accounting for abnormal amounts of idle facility expense, freight, handling costs and wasted material. SFAS No. 151 is effective for inventory costs incurred during fiscal years beginning after June 15, 2005. The Company is currently evaluating the impact of adopting SFAS No. 151 on its consolidated financial position, results of operations and cash flows.

#### **3. Acquisitions and Divestitures**

During the second quarter of 2002, General Cable formed a joint venture company to manufacture and market fiber optic cables. General Cable contributed assets, primarily inventory and machinery and equipment, to a subsidiary company, which was then contributed to the joint venture in exchange for a \$10.2 million note receivable, which resulted in a \$5.6 million deferred gain on the transaction. Beginning in the first quarter of 2004, the Company consolidated the joint venture company as a result of the adoption of FIN No. 46, as revised. During the fourth quarter of 2004, the Company exchanged the note receivable from the joint venture partner for the partner's ownership interest in the joint venture company. The acquired ownership interest was recorded at fair market value, which was \$2.4 million less than the carrying value of the note receivable, net of the deferred gain, resulting in a \$2.4 million charge to SG&A expense in the fourth quarter of 2004. In addition, the Company wrote-off the goodwill recorded on the joint venture company books resulting in a \$1.9 million charge. The December 31, 2003 balance sheet included a \$3.5 million investment in joint venture in other non-current assets, a \$10.2 million note receivable from the former joint venture partner and a \$5.6 million deferred gain in other liabilities.

#### **4. Other Income (Expense)**

Other income (expense) includes foreign currency transaction gains or losses which result from changes in exchange rates between the designated functional currency and the currency in which a transaction is denominated. During 2004 and 2003, the Company recorded a \$(1.2) million loss and a \$1.5 million gain, respectively, resulting from foreign currency transaction gains and losses.

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

#### 5. Discontinued Operations

In September 2001, the Company announced its decision to sell its building wire business and to exit its retail cordsets business, the results of which have been reported as discontinued operations. The gain (loss) on disposal of the discontinued operations were as follows (in millions):

	Year Ended December 31,		
	2004	2003	2002
Pre-tax gain (loss) on disposal of discontinued operations	\$ 0.6	\$ -	\$(9.1)
Income tax (expense) benefit	(0.2)	-	3.2
Gain (loss) on disposal of discontinued operations	<u>\$ 0.4</u>	<u>\$ -</u>	<u>\$(5.9)</u>

During 2004, the Company recorded a \$0.6 million pre-tax gain on the disposal of discontinued operations resulting from the reversal of provisions not expected to be utilized related to the disposal of these operations. During 2002, the Company recorded a \$9.1 million pre-tax loss on disposal of discontinued operations. The components of this charge principally related to an estimated lower net realizable value for real estate remaining from the Company's former building wire business unit which was sold in 2001, a longer than anticipated holding period for three distribution centers with unexpired lease commitments and certain other costs.

#### 6. Accounts Receivable Asset-backed Securitization

In May 2001, the Company completed an Accounts Receivable Asset-backed Securitization Financing transaction ("Securitization Financing"). The Securitization Financing provided for certain domestic trade receivables to be transferred to a wholly-owned, special purpose bankruptcy-remote subsidiary without recourse. This subsidiary in turn transferred the receivables to a trust, which issued, via private placement, floating rate five-year certificates in an initial amount of \$145 million. In addition, a variable certificate component of up to \$45 million for seasonal borrowings was also established as a part of the Securitization Financing. This variable certificate component would fluctuate based on the amount of eligible receivables. As a result of the building wire asset sale and the exit from the retail cordsets business, the Securitization Financing program was downsized to \$80 million in the first quarter of 2002, through the repayment of a portion of the outstanding certificates. The repayment of the certificates was funded by the collection of the outstanding building wire and retail cordsets accounts receivable. The \$45 million seasonal borrowing component was unaffected.

Transfers of receivables under this program were treated as a sale and resulted in a reduction of total accounts receivable reported on the Company's consolidated balance sheet. The Company continued to service the transferred receivables and received annual servicing fees from the special purpose subsidiary of approximately 1% of the average receivable balance. The market cost of servicing the receivables offset the servicing fee income and resulted in a servicing asset equal to zero. The Company's retained interest in the receivables were carried at their fair value, which was estimated as the net realizable value. The net realizable value considered the relatively short liquidation period and an estimated provision for credit losses. The provision for credit losses was determined based on specific identification of uncollectible accounts and the application of historical collection percentages by aging category. The receivables were not subject to prepayment risk. The key assumptions used in measuring the fair value of retained interests at the time of securitization were receivables days sales outstanding of 54 and interest rates on LIBOR based on borrowings of 4.92%. At December 31, 2002, key assumptions used in measuring the fair value of the retained interest were days sales outstanding of 49 and interest rates on LIBOR based on borrowings of 2.0%.

At December 31, 2002, the Company's retained interest in accounts receivable was \$84.8 million and off balance sheet financing, net of cash held in the trust, was \$48.5 million. The effective interest rate in the securitization financing was approximately 2.0% at December 31, 2002. In 2002, proceeds from new sales totaled \$1,067.6 million and cash collections reinvested totaled \$1,030.8 million. The portfolio of accounts receivable that the Company serviced totaled approximately \$130 million at December 31, 2002. This securitization financing was terminated during the fourth quarter of 2003 in conjunction with the Company's refinancing of its bank debt. As a result of its early termination, the Company incurred costs of \$0.8 million in the fourth quarter of 2003.

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Notes to Consolidated Financial Statements - (Continued)

### 7. Inventories

Inventories consisted of the following (in millions):

	December 31,	
	2004	2003
Raw materials	\$ 33.2	\$ 25.5
Work in process	42.7	34.9
Finished goods	239.6	196.3
Total	<u>\$315.5</u>	<u>\$256.7</u>

At December 31, 2004 and December 31, 2003, \$266.8 million and \$202.4 million, respectively, of inventories were valued using the LIFO method. Approximate replacement costs of inventories valued using the LIFO method totaled \$310.1 million at December 31, 2004 and \$218.2 million at December 31, 2003.

If in some future period the Company was not able to recover the LIFO value of its inventory at a profit when replacement costs were lower than the LIFO value of the inventory, the Company would be required to take a charge to recognize in its income statement all or a portion of the higher LIFO value of the inventory. During 2002, the Company recorded a \$2.5 million LIFO charge for the liquidation of LIFO inventory in North America as the Company significantly reduced its inventory levels. The Company further reduced inventory quantities in North America during 2003 and recorded a \$0.5 million LIFO liquidation charge.

### 8. Property, Plant and Equipment

Property, plant and equipment consisted of the following (in millions):

	December 31,	
	2004	2003
Land	\$ 26.8	\$ 27.0
Buildings and leasehold improvements	62.5	63.9
Machinery, equipment and office furnishings	469.8	408.1
Construction in progress	8.7	7.8
Total - gross book value	<u>567.8</u>	<u>506.8</u>
Less accumulated depreciation	<u>(211.8)</u>	<u>(173.5)</u>
Total - net book value	<u>\$ 356.0</u>	<u>\$ 333.3</u>

Depreciation expense totaled \$31.8 million, \$29.8 million and \$28.1 million for the years ended December 31, 2004, 2003 and 2002, respectively.

### 9. Accrued Liabilities

Accrued liabilities consisted of the following (in millions):

	December 31,	
	2004	2003
Payroll related accruals	\$ 30.5	\$ 23.6
Customers deposits and prepayments	13.1	11.3
Taxes other than income	15.0	12.1
Customer rebates	13.3	8.6
Insurance claims and related expenses	5.4	5.4
Accrued restructuring costs	1.7	4.3
Current deferred tax liability	0.4	2.1
Other accrued liabilities	28.7	32.2
Total	<u>\$108.1</u>	<u>\$ 99.6</u>

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Notes to Consolidated Financial Statements - (Continued)

### 10. Restructuring Charges

Changes in accrued restructuring costs were as follows (in millions):

	Severance and Related Costs	Facility Closing Costs	Total
Balance, December 31, 2001	\$ 2.6	\$ 10.7	\$ 13.3
Provisions	14.0	10.0	24.0
Utilization	(12.2)	(9.9)	(22.1)
Balance, December 31, 2002	4.4	10.8	15.2
Provisions, net of reversals	2.5	5.7	8.2
Utilization	(5.5)	(13.6)	(19.1)
Balance, December 31, 2003	1.4	2.9	4.3
Provisions, net of reversals	3.3	3.2	6.5
Utilization	(4.2)	(4.9)	(9.1)
Balance, December 31, 2004	\$ 0.5	\$ 1.2	\$ 1.7

During 2004, \$7.1 million of provisions were recorded for severance and related costs (\$3.3 million) and facility closing costs (\$3.8 million) related to the rationalization of industrial cable manufacturing facilities. The Company completed its rationalization plans for these facilities at the end of 2004. During 2004, the Company also reversed unutilized provisions of \$0.6 million related to the Company's discontinued operations. Provisions of \$6.0 million were included in cost of sales, \$1.1 million were included in selling, general and administrative expenses and the reversal of unutilized provisions of \$0.6 million were included in gain on disposal of discontinued operations. All restructuring provisions, net of reversals, are reflected in the corporate segment.

The Company's Taunton, Massachusetts facility ceased operations on January 30, 2004, and employed approximately 50 associates and was comprised of approximately 131,000 square feet of space. The Company has also refocused and realigned production at its Marion, Indiana facility. The Company also closed its South Hadley, Massachusetts facility in the third quarter of 2004. This facility employed approximately 40 associates and was comprised of approximately 150,000 square feet of space. The Company's Plano, Texas rod mill facility ceased operations at the end of June 2004 and employed approximately 30 associates and was comprised of approximately 60,000 square feet of space. During the second quarter of 2004 the Company sold most of the equipment utilized in the rod mill facility. Proceeds from the sale of equipment were partially offset by costs related to closing the facility which resulted in a net gain of \$0.3 million in the year ended December 31, 2004.

During 2003, provisions of \$10.3 million were recorded for severance and related costs resulting from headcount reductions of approximately 110 associates at the Company's European operations (\$2.7 million) and the rationalization of industrial cable manufacturing facilities (\$7.6 million). Additionally, the Company reversed unutilized provisions of \$1.6 million related to severance costs and \$0.5 million related to facility closing costs. Provisions of \$10.1 million were included in cost of sales while \$0.2 million were in selling, general and administrative expenses. The reversal of unutilized provisions of \$2.1 million was recorded in selling, general and administrative expense. All of the restructuring provisions, net of reversals are reflected in the corporate segment.

During 2002, \$24.0 million of provisions were recorded (\$14.9 million in continuing operations and \$9.1 million in discontinued operations). The \$9.1 million discontinued operations pre-tax charge principally related to an estimated lower net realizable value for real estate remaining from the Company's former building wire business, a longer than anticipated holding period for three distribution centers with unexpired lease commitments and certain other costs. The \$14.9 million continuing operations charge included \$6.9 million for severance and related costs resulting from worldwide headcount reductions of approximately 140 associates and \$8.0 million related to costs to close two manufacturing facilities. The \$8.0 million charge for the closure of manufacturing facilities included \$5.6 million for severance and related costs. The closed manufacturing facilities, located in Monticello, Illinois and Sanger, California, employed approximately 200 associates and utilized more than 350,000 square feet in the production of service wire sold to the telecommunications industry and certain data communications cables.

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Notes to Consolidated Financial Statements - (Continued)

### 11. Long-Term Debt

Long-term debt consisted of the following (in millions):

	December 31,	
	2004	2003
Senior notes due 2010	\$285.0	\$285.0
Revolving loans	78.6	43.0
Other	11.3	12.4
Total debt	374.9	340.4
Less current maturities	1.1	2.3
Long-term debt	<u>\$373.8</u>	<u>\$338.1</u>

Weighted average interest rates at December 31, 2004 and 2003 were as follows:

Senior notes due 2010	9.5%	9.5%
Revolving loans	4.9%	3.9%
Other	3.9%	2.1%

On November 24, 2003, the Company completed a comprehensive refinancing of its bank debt that improved its capital structure and provided increased financial and operating flexibility by reducing leverage, increasing liquidity and extending debt maturities. The refinancing included the following: (i) the private placement of 7-year senior unsecured notes, (ii) a new senior secured revolving credit facility, (iii) the private placement of redeemable convertible preferred stock and (iv) a public offering of common stock. The Company applied the net proceeds from these refinancing transactions to repay all amounts outstanding under its former senior secured revolving credit facility, senior secured term loans and accounts receivable asset-backed securitization facility and to pay fees and expenses related to the refinancing.

The senior unsecured notes (the "Notes") were issued in the amount of \$285.0 million, bear interest at a fixed rate of 9.5% and mature in 2010. The estimated fair value of the Notes was approximately \$322.1 million at December 31, 2004.

The senior secured revolving credit facility is a five year \$240.0 million asset based revolving credit agreement (the "Credit Agreement"). The Credit Agreement is secured by substantially all U.S. and Canadian assets. Borrowing availability is based on eligible U.S. and Canadian accounts receivable and inventory and certain U.S. fixed assets. As of December 31, 2004 and 2003, the Company had outstanding borrowings of \$78.6 million and \$43.0 million, respectively, and availability of \$126.0 million and \$147.6 million, respectively, under the terms of the Credit Agreement. Availability of borrowings under the fixed asset component of the new facility is reduced quarterly over a seven-year period by \$5.7 million per annum beginning in 2004. This may result in a reduction in the overall availability depending upon the calculation of eligible accounts receivable and inventory. The facility also includes a sub-facility for letters of credit of up to \$50.0 million. At December 31, 2004 and 2003, the Company had outstanding letters of credit of \$34.4 million and \$37.7 million, respectively.

During the fourth quarter of 2004, the Company amended the Credit Agreement which lowered the borrowing rate by 50 basis points, increased the annual capital spending limit and provided for the ability to swap up to \$100 million of existing fixed rate Senior notes to a floating interest rate.

Borrowings under the Credit Agreement, as amended, bear interest at a rate of LIBOR plus 2.00% to 2.50% and/or prime plus 0.75% to 1.25% depending upon the Company's fixed charge coverage, as defined by the Credit Agreement. The weighted average interest rate on borrowings under the Credit Agreement for the year ended December 31, 2004 was 4.57%. Under the Credit Agreement, the Company pays a commitment fee of 0.50% per annum on the unused portion of the commitment. In connection with the November 2003 refinancing and fourth quarter 2004 amendment to the Credit Agreement, the Company incurred fees and expenses aggregating \$7.7 million, which are being amortized over the term of the Credit Agreement. In addition, \$4.4 million of unamortized fees related to the former credit facility were written off in the fourth quarter of 2003.

The Credit Agreement, as amended, contains covenants that limit capital spending and the payment of dividends to holders of common stock and require a minimum fixed charge coverage ratio, as defined. At December 31, 2004 and 2003, the Company was in compliance with all covenants under the Credit Agreement.

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

The Company's former credit facility was entered into in 1999 with one lead bank as administrative agent, and a syndicate of lenders. During 2002, the Company amended its former credit facility which resulted in the write-off of unamortized bank fees of \$1.6 million. The weighted average interest rate on borrowings under the former credit facility for the period January 1, 2003 through November 24, 2003 was 6.15%.

At December 31, 2004, maturities of long-term debt during each of the years 2005 through 2009 are \$1.1 million, \$0.2 million, \$0.3 million, \$78.8 million and \$0.2 million, respectively, and \$294.3 million thereafter.

#### **12. Financial Instruments**

General Cable is exposed to various market risks, including changes in interest rates, foreign currency and commodity prices. To manage risk associated with the volatility of these natural business exposures, General Cable enters into interest rate, commodity and foreign currency derivative agreements as well as copper and aluminum forward pricing agreements. General Cable does not purchase or sell derivative instruments for trading purposes.

General Cable has utilized interest rate swaps and interest rate collars to manage its interest expense exposure by fixing its interest rate on a portion of the Company's floating rate debt. Under the swap agreements, General Cable paid a fixed rate while the counterparty paid to General Cable the difference between the fixed rate and the three-month LIBOR rate.

During 2001, the Company entered into several interest rate swaps which effectively fixed interest rates for borrowings under the former credit facility and other debt. In December 2003 in conjunction with the refinancing of its bank debt, the Company incurred a cost of \$0.8 million to terminate the interest rate swaps related to the former credit facility. At December 31, 2004, the remaining outstanding interest rate swap had a notional value of \$9.0 million, an interest rate of 4.49% and matures in October 2011. The Company does not provide or receive any collateral specifically for this contract. The fair value of interest rate derivatives are based on quoted market prices and third party provided calculations, which reflect the present values of the difference between estimated future variable-rate receipts and future fixed-rate payments. At December 31, 2004 and 2003, the net unrealized loss on the interest rate derivative and the related carrying value was \$(0.7) million.

The Company enters into forward exchange contracts principally to hedge the currency fluctuations in certain transactions denominated in foreign currencies, thereby limiting the Company's risk that would otherwise result from changes in exchange rates. Principal transactions hedged during the year were firm sales and purchase commitments. The fair value of foreign currency contracts represents the amount required to enter into offsetting contracts with similar remaining maturities based on quoted market prices. At December 31, 2004 and 2003, the net unrealized loss on the net foreign currency contracts was \$(0.6) million and \$(0.8) million, respectively.

Outside of North America, General Cable enters into commodity futures contracts for the purchase of copper and aluminum for delivery in a future month to match certain sales transactions. At December 31, 2004 and 2003, General Cable had an unrealized gain of \$3.5 million and \$0.1 million, respectively, on the commodity futures.

Foreign currency and commodity contracts are used to hedge future sales and purchase commitments. Interest rate swaps are used to manage interest expense exposure by fixing the interest rate on a portion of floating rate debt. Unrealized gains and losses on these derivative financial instruments are recorded in other comprehensive income until the underlying transaction occurs and is recorded in the income statement at which point such amounts included in other comprehensive income are recognized in income which generally will occur over periods less than one year. During the years ended December 31, 2004, 2003 and 2002, a \$(1.0) million loss, a \$(6.2) million loss, and a \$(6.3) million loss were reclassified from other comprehensive income to the income statement.

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Notes to Consolidated Financial Statements - (Continued)

The notional amounts and fair values of these financial instruments at December 31, 2004 and 2003 are shown below (in millions). The carrying amount of the financial instruments was a net asset of \$2.2 million and a net liability (\$1.4) million at December 31, 2004 and 2003, respectively.

	2004		2003	
	Notional Amount	Fair Value	Notional Amount	Fair Value
Interest rate swap	\$ 9.0	\$ (0.7)	\$ 9.0	\$ (0.7)
Foreign currency forward exchange	33.6	(0.6)	38.4	(0.8)
Commodity futures	48.8	3.5	13.6	0.1
		<u>\$ 2.2</u>		<u>\$ (1.4)</u>

In North America, General Cable enters into forward pricing agreements for the purchase of copper and aluminum for delivery in a future month to match certain sales transactions. General Cable had an unrealized gain of \$7.2 million at December 31, 2004 and \$2.4 million at December 31, 2003 related to these transactions. General Cable expects to offset the unrealized gains under these agreements as a result of firm sale price commitments with customers.

### 13. Income Taxes

The provision (benefit) for income taxes attributable to continuing operations consisted of the following (in millions):

	Year Ended December 31,		
	2004	2003	2002
Current tax expense (benefit):			
Federal	\$ (34.0)	\$ -	\$ (13.8)
State	(1.4)	0.2	0.1
Foreign	16.7	8.1	6.8
Deferred tax expense (benefit):			
Federal	(1.9)	(14.7)	(6.9)
State	-	-	2.9
Foreign	2.5	9.3	1.0
Total	<u>\$ (18.1)</u>	<u>\$ 2.9</u>	<u>\$ (9.9)</u>

The income tax provision (benefit) attributable to the operations and disposal of discontinued operations was \$0.2 million and \$(3.2) million for 2004 and 2002, respectively.

The reconciliation of reported income tax expense (benefit) to the amount of income tax expense that would result from applying domestic federal statutory tax rates to pretax income from continuing operations is as follows (in millions):

	Year Ended December 31,		
	2004	2003	2002
Statutory federal income tax	\$ 6.8	\$ (0.7)	\$ (9.8)
State and foreign income tax differential	(1.4)	(0.3)	0.8
Subpart F taxation of foreign profits	0.1	4.4	-
Settlement of tax items	(23.3)	-	-
Other, net	(0.3)	(0.5)	(0.9)
Total	<u>\$ (18.1)</u>	<u>\$ 2.9</u>	<u>\$ (9.9)</u>

See further discussion of the most significant settlement of tax items in Note 24.



## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

The components of deferred tax assets and liabilities were as follows (in millions):

	December 31,	
	2004	2003
Deferred tax assets:		
Net operating loss carryforwards	\$ 87.5	\$ 89.4
Pension and retiree benefits accruals	12.6	15.1
Asset and rationalization reserves	0.6	2.5
Inventory	14.1	5.8
Tax credit carryforwards	6.5	7.7
Other liabilities	11.1	11.3
Valuation allowance	<u>(17.5)</u>	<u>(19.0)</u>
Total deferred tax assets	114.9	112.8
Deferred tax liabilities:		
Inventory	0.6	5.6
Depreciation and fixed assets	<u>41.3</u>	<u>30.2</u>
Net deferred tax assets	<u>\$ 73.0</u>	<u>\$ 77.0</u>

As of December 31, 2004, the Company has recorded a valuation allowance for its state net operating loss carryforwards and a portion of its foreign net operating loss carryforwards due to uncertainties regarding the ability to obtain future tax benefits for these tax attributes. The December 31, 2004 valuation allowance of \$17.5 million decreased \$1.5 million from the prior year.

The valuation of the deferred tax asset is dependent on, among other things, the ability of the Company to generate a sufficient level of future taxable income. In estimating future taxable income, the Company has considered both positive and negative evidence, such as historical results of operations, including the losses realized in recent periods, and has considered the implementation of prudent and feasible tax planning strategies. Approximately \$20 million of the Company's deferred tax asset must be utilized prior to its expiration in the period 2006-2009. The remainder of the asset may be used for at least 15 years. This finite life has also been considered by the Company in the valuation of the asset. The Company has and will continue to review on a quarterly basis its assumptions and tax planning strategies and, if the amount of the estimated realizable net deferred tax asset is less than the amount currently on the balance sheet, the Company would reduce its deferred tax asset, recognizing a non-cash charge against reported earnings.

After taking into account 2001 and 2002 U.S. net operating loss carrybacks that resulted in tax refunds of \$50.9 million, the Company generated U.S. net operating loss carryforwards of \$47.5 million in 2000, \$49.4 million in 2002, \$36.2 million in 2003, and \$15.8 million in 2004. These U.S. net operating loss carryforwards expire in 2020, 2022, 2023 and 2024, respectively. The Company also has other U.S. net operating loss carryforwards that are subject to an annual limitation under Internal Revenue Code Section 382. These Section 382 limited net operating loss carryforwards expire in varying amounts from 2006-2009. The total Section 382 limited net operating loss carryforward that may be utilized prior to expiration is estimated at \$53.9 million. The Company has approximately \$19.4 million of net operating loss carryforwards in various foreign jurisdictions. A valuation allowance has been established against \$15.9 million of these foreign net operating losses due to the uncertainty of utilization prior to expiration. The Company also has \$6.5 million of U.S. alternative minimum tax credits, which have no expiration date. Approximately \$3.1 million of these alternative minimum tax credit carryforwards are also subject to Section 382 limitations.

The American Jobs Creation Act of 2004 provides that US corporations can repatriate earnings of foreign subsidiaries at a reduced tax rate under certain circumstances. As of December 31, 2004 the undistributed earnings of foreign subsidiaries that are considered to be indefinitely reinvested are approximately \$135 million. The Company is currently in the process of evaluating how much, if any, of these foreign earnings will be repatriated. The Company will determine the sources and amounts, if any, of the foreign earnings repatriation and the related tax expense prior to December 31, 2005.

#### **14. Pension Plans**

General Cable provides retirement benefits through contributory and noncontributory pension plans for the majority of its regular full-time employees. Pension expense under the defined contribution plans sponsored by General Cable in the United

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Notes to Consolidated Financial Statements - (Continued)

States equaled four percent of each eligible employee's covered compensation. In addition, General Cable sponsors employee savings plans under which General Cable may match a specified portion of contributions made by eligible employees.

Benefits provided under defined benefit pension plans sponsored by General Cable are generally based on years of service multiplied by a specific fixed dollar amount. Contributions to these pension plans are based on generally accepted actuarial methods, which may differ from the methods used to determine pension expense. The amounts funded for any plan year are neither less than the minimum required under federal law nor more than the maximum amount deductible for federal income tax purposes. Pension plan assets consist of various fixed-income investments and equity securities.

Net pension expense included the following components (in millions):

	Year ended December 31,		
	2004	2003	2002
Service cost	\$ 2.1	\$ 1.9	\$ 2.1
Interest cost	9.4	9.1	9.1
Expected return on plan assets	(9.6)	(7.4)	(10.2)
Net amortization and deferral	<u>3.6</u>	<u>4.8</u>	<u>1.0</u>
Net defined benefit pension expense	5.5	8.4	2.0
Net defined contribution pension expense	<u>5.9</u>	<u>5.4</u>	<u>5.7</u>
Total pension expense	<u>\$ 11.4</u>	<u>\$ 13.8</u>	<u>\$ 7.7</u>

The changes in the benefit obligation and plan assets, the funded status of the plan and the amounts recognized in the Consolidated Balance Sheets were as follows (in millions):

	December 31,	
	2004	2003
<b>Changes in Benefit Obligation:</b>		
Beginning benefit obligation	\$ 154.5	\$ 141.0
Impact of foreign currency exchange rate change	1.7	2.3
Service cost	2.1	1.9
Interest cost	9.4	9.1
Curtailment gain	-	(0.3)
Special termination benefits	-	0.3
Benefits paid	(10.8)	(10.1)
Amendments	2.0	-
Assumption change	-	7.4
Actuarial loss	<u>4.6</u>	<u>2.9</u>
Ending benefit obligation	<u>\$ 163.5</u>	<u>\$ 154.5</u>
<b>Changes in Plan Assets:</b>		
Beginning fair value of plan assets	\$ 114.6	\$ 88.9
Impact of foreign currency exchange rate change	1.4	1.7
Actual return on plan assets	12.3	28.0
Company contributions	13.0	6.1
Benefits paid	<u>(10.8)</u>	<u>(10.1)</u>
Ending fair value of plan assets	<u>\$ 130.5</u>	<u>\$ 114.6</u>
<b>Reconciliation of Funded Status:</b>		
Funded status of the plan	\$ (33.0)	\$ (39.9)
Unrecognized net transition obligation	-	0.5
Unrecognized actuarial loss	36.2	35.4
Unrecognized prior service cost	<u>10.1</u>	<u>9.2</u>
Prepaid pension cost	<u>\$ 13.3</u>	<u>\$ 5.2</u>
<b>Amounts Recognized in Consolidated Balance Sheet:</b>		
Accrued pension liability	\$ (27.3)	\$ (35.4)
Prepaid pension cost	-	0.7
Intangible asset	5.2	5.1
Accumulated other comprehensive income	<u>35.4</u>	<u>34.8</u>
Net amount recognized	<u>\$ 13.3</u>	<u>\$ 5.2</u>

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

The curtailment gain and special termination benefits in 2003 were the result of closing and selling certain manufacturing locations.

The weighted average interest rate assumptions used in determining current year assets and liabilities and determining subsequent year expenses were:

	<u>2004</u>	<u>2003</u>	<u>2002</u>
Discount rate	6.0%	6.0%	6.5%
Expected rate of increase in future compensation levels	4.0%	4.0%	4.0%
Long-term rate of return on plan assets	8.5%	8.5%	9.0%

Pension expense for the defined benefit pension plans sponsored by General Cable is determined based upon a number of actuarial assumptions, including an expected long-term rate of return on assets of 8.5%. This assumption was based on input from actuaries, including their review of historical 10 year, 20 year, and 25 year rates of inflation and real rates of return on various broad equity and bond indices in conjunction with the diversification of the asset portfolio. The expected long-term rate of return on assets is based on an asset allocation assumption of 65% allocated to equity investments, with an expected real rate of return of 7%, and 35% with fixed-income investments, with an expected real rate of return of 3%, and an assumed long-term rate of inflation of 3%. Because of market fluctuations, the actual asset allocations as of December 31, 2004 and 2003 were 68% and 74%, respectively, of equity investments and 32% and 26%, respectively, of fixed-income investments. Management believes that long-term asset allocation on average will approximate the Company's assumptions and that a 8.5% long-term rate of return is a reasonable assumption.

The determination of pension expense for the defined benefit pension plans is based on the fair market value of assets as of the measurement date which is December 31. Investment gains and losses are recognized in the measurement of assets immediately. Such gains and losses will be amortized and recognized as part of the annual benefit cost to the extent that unrecognized net gains and losses from all sources exceed 10% of the greater of the projected benefit obligation or the market value of assets.

The determination of future pension obligations utilizes a discount rate based on a review of long-term bonds that receive one of the two highest ratings given by a recognized rating agency which are expected to be available during the period to maturity of the projected pension benefit obligations, and input from our actuaries. The discount rate used at December 31, 2004 was 6.0%.

The accumulated benefit obligation for all of the Company's defined benefit pension plans was \$157.3 million and \$149.5 million at December 31, 2004 and 2003, respectively. The projected benefit obligation and accumulated benefit obligation for the pension plans with accumulated benefit obligations in excess of plan assets were \$150.0 million and \$147.7 million at December 31, 2004, and \$136.3 million and \$135.2 million at December 31, 2003.

The Company expects to contribute \$10.8 million to its defined benefit pension plans for 2005. The estimated future benefit payments expected to be paid for the Company's defined benefit plans are \$9.4 million in 2005, \$9.5 million in 2006, \$9.5 million in 2007, \$9.8 million in 2008, \$9.9 million in 2009 and \$53.4 million in the five years thereafter.

#### **15. Post-Retirement Benefits Other Than Pensions**

General Cable has post-retirement benefit plans that provide medical and life insurance for certain retirees and eligible dependents. General Cable funds the plans as claims or insurance premiums are incurred. Net post-retirement benefit expense included the following components (in millions):

	<u>Year ended December 31,</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
Service cost	\$0.3	\$0.3	\$0.3
Interest cost	0.6	0.6	0.7
Amortization of prior service cost	(0.1)	(0.6)	(0.7)
Curtailment loss	-	-	<u>0.2</u>
Net post-retirement benefit expense	<u>\$0.8</u>	<u>\$0.3</u>	<u>\$0.5</u>

The curtailment loss was the result of closing certain manufacturing locations in 2002.

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

The change in the accrued post-retirement benefit liability was as follows (in millions):

	<u>December 31,</u>	
	<u>2004</u>	<u>2003</u>
Beginning benefit obligation balance	\$10.1	\$10.8
Impact of foreign currency exchange rate change	0.1	-
Net periodic benefit expense	0.8	0.3
Benefits paid	<u>(1.0)</u>	<u>(1.0)</u>
Ending benefit obligation balance	<u>\$10.0</u>	<u>\$10.1</u>

The discount rate used in determining the accumulated post-retirement benefit obligation was 5.5% for the year ended December 31, 2004, 6.0% for the year ended December 31, 2003 and 6.5% for the year ended December 31, 2002. The assumed health-care cost trend rate used in measuring the accumulated post-retirement benefit obligation was 10.0%, decreasing gradually to 4.50% in year 2011 and thereafter. Increasing the assumed health-care cost trend rate by 1% would result in an increase in the accumulated post-retirement benefit obligation of \$0.7 million for 2004. The effect of this change would increase net post-retirement benefit expense by \$0.1 million. Decreasing the assumed health-care cost trend rate by 1% would result in a decrease in the accumulated post-retirement benefit obligation of \$0.6 million for 2004. The effect of this change would decrease net post-retirement benefit expense by \$0.1 million.

The estimated future benefit payments expected to be paid for the Company's post-retirement benefits other than pensions are \$1.1 million in 2005, \$1.1 million in 2006, \$1.0 million in 2007, \$0.9 million in 2008, \$0.9 million in 2009 and \$4.6 million in the five years thereafter.

#### **16. Shareholders' Equity**

General Cable is authorized to issue 75 million shares of common stock and 25 million shares of preferred stock.

In the fourth quarter of 2003, the Company completed a comprehensive refinancing of its bank debt. The refinancing included the private placement of 2,070,000 shares of redeemable convertible preferred stock and a public offering of 5,807,500 shares of common stock.

The preferred stock has a liquidation preference of \$50.00 per share. Dividends accrue on the convertible preferred stock at the rate of 5.75% per annum and are payable quarterly in arrears starting on February 24, 2004. Dividends are payable in cash, shares of General Cable common stock or a combination thereof. Holders of the convertible preferred stock are entitled to convert any or all of their shares of convertible preferred stock into shares of General Cable common stock, at an initial conversion price of \$10.004 per share. The conversion price is subject to adjustments under certain circumstances. General Cable is obligated to redeem all outstanding shares of convertible preferred stock on November 24, 2013 at par. The Company may, at its option, elect to pay the redemption price in cash or in shares of General Cable common stock with an equivalent fair value, or any combination thereof. The Company has the option to redeem some or all of the outstanding shares of convertible preferred stock in cash beginning on the fifth anniversary of the issue date. The redemption premium will initially equal one-half the dividend rate on the convertible preferred stock and decline ratably to par on the date of mandatory redemption. In the event of a change in control, the Company has the right to either redeem the preferred stock for cash or to convert the preferred stock to common stock.

The Company has two equity compensation plans, the 1997 Stock Incentive Plan and the 2000 Stock Option Plan. The 1997 Stock Incentive Plan authorizes a maximum of 4,725,000 shares, options or units of Common Stock to be granted. Stock options are granted to employees selected by the Compensation Committee of the Board or the Chief Executive Officer at prices which are not less than the closing market price on the date of grant. The Compensation Committee (or Chief Executive Officer) has authority to set all the terms of each grant. The majority of the options granted under the plan expire in 10 years and become fully exercisable ratably over three years of continued employment or become fully exercisable after three years of continued employment. Restrictions on the majority of shares awarded to employees under the plan expire ratably over a three-year period, expire after six years from the date of grant or expire ratably from the second anniversary to the sixth anniversary of the date of grant. Restricted stock units were awarded to employees in November 1998 as part of a Stock Loan Incentive Plan.

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

The 2000 Stock Option Plan as amended authorizes a maximum of 1,500,000 non-incentive options to be granted. No other forms of award are authorized under this plan. Stock options are granted to employees selected by the Compensation Committee of the Board or the Chief Executive Officer at prices which are not less than the closing market price on the date of grant. The Compensation Committee (or Chief Executive Officer) has authority to set all the terms of each grant. The majority of the options granted under the plan expire in 10 years and become fully exercisable ratably over three years of continued employment or become fully exercisable after three years of continued employment.

During the first quarter of 2001, 355,500 shares of restricted common stock with performance accelerated vesting features were awarded to certain senior executives under the Company's 1997 Stock Incentive Plan, as amended. Under the terms of this plan, the Company can award restricted common stock to executives and key employees with such features. The restricted shares vest six years from the date of grant unless certain performance criteria are met. The performance measure used to determine vesting is the Company's stock price. The stock price targets must be sustained for 20 business days in order to trigger accelerated vesting. During the second quarter of 2001, as a result of the achievement of performance criteria, restrictions on 50% of the stock expired and the Company recognized accelerated amortization of \$1.2 million.

In January 2004, 340,500 shares of restricted common stock with performance accelerated vesting features were awarded to Company executives and key employees under the Company's 1997 Stock Incentive Plan as amended. The restricted shares vest ratably from the second anniversary of the date of grant to the sixth anniversary unless certain performance criteria are met. The performance measure used to determine accelerated vesting is earnings per share.

Amortization of all outstanding restricted stock awards was \$0.5 million, \$0.1 million and \$0.1 million during 2004, 2003 and 2002, respectively.

In November 1998, General Cable entered into a Stock Loan Incentive Plan (SLIP) with executive officers and key employees. Under the SLIP, the Company loaned \$6.0 million to facilitate open market purchases of General Cable common stock. A matching restricted stock unit (MRSU) was issued for each share of stock purchased under the SLIP. The fair value of the MRSUs at the grant date of \$6.0 million, adjusted for subsequent forfeitures, was amortized to expense over the initial five-year vesting period. In June 2003, all executive officers repaid their loans plus interest that were originally made under the SLIP in the amount of \$1.8 million. The Company accepted as partial payment for the loans common stock owned by the executive officers and restricted stock units previously awarded to them under the SLIP. In July 2003, the Company approved an extension of the loan maturity for the remaining participants in the SLIP for an additional three years to November 2006, subject in the extension period to a rate of interest of 5.0%. As part of the loan extension the vesting schedule on the MRSUs was also extended so that the MRSUs vest in November 2006. If the vesting requirements are met, one share of General Cable common stock will be issued in exchange for each MRSU. During the third quarter of 2004, certain employees repaid their loans plus interest that were originally made under the SLIP in the amount of \$1.4 million. The Company accepted, as partial payment for the loans, common stock owned by the employees and restricted stock units previously awarded to them under the SLIP. There are 82,932 MRSUs outstanding as of December 31, 2004. The MRSUs were fully amortized in 2003. Amortization expense related to the MRSUs was \$0.4 million and \$0.9 million during 2003 and 2002 respectively.

The components of accumulated other comprehensive income (loss) consisted of the following (in millions):

	December 31,	
	2004	2003
Foreign currency translation adjustment	\$41.5	\$17.6
Pension adjustments, net of tax	(23.5)	(23.3)
Change in fair value of derivatives, net of tax	1.9	(0.7)
Net unrealized investment gains	2.5	0.9
Total	<u>\$22.4</u>	<u>\$(5.5)</u>

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Notes to Consolidated Financial Statements - (Continued)

Other shareholder's equity consisted of the following (in millions):

	December 31,	
	2004	2003
Loans to shareholders	\$(1.6)	\$(2.8)
Restricted stock	(2.8)	(0.4)
Total	<u>\$(4.4)</u>	<u>\$(3.2)</u>

### 17. Stock Options

General Cable applies Accounting Principles Board Opinion No. 25 and related Interpretations in accounting for stock options issued under its 1997 Stock Incentive Plan and its 2000 Stock Option Plan (see description of plans in Note 16). Accordingly, no compensation cost has been recognized for stock option grants under the plans.

A summary of option information for the years ended December 31, 2004, 2003 and 2002 follows (options in thousands):

	Options Outstanding	Weighted Average Exercise Price
Balance at December 31, 2001	3,224	\$13.75
Granted	641	13.39
Exercised	(265)	8.99
Forfeited	<u>(857)</u>	<u>15.47</u>
Balance at December 31, 2002	2,743	13.55
Granted	1,126	4.05
Exercised	(15)	7.92
Forfeited	<u>(363)</u>	<u>11.37</u>
Balance At December 31, 2003	3,491	10.61
Granted	35	8.73
Exercised	(123)	8.01
Forfeited	<u>(117)</u>	<u>10.37</u>
Balance At December 31, 2004	<u>3,286</u>	<u>\$10.70</u>

The following table summarizes information about stock options outstanding at December 31, 2004 (options in thousands):

Range of Option Prices	Options Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Options Exercisable	Weighted Average Exercise Price
\$0 - \$7	1,039	\$4.03	8.1	-	-
\$7 - \$14	1,723	\$11.69	5.2	1,117	\$10.95
\$14 - \$21	146	\$14.26	4.7	145	\$14.24
\$21 - \$28	378	\$23.10	3.6	378	\$23.10

As of December 31, 2004, 2003 and 2002, there were 1,640,000, 1,674,000 and 1,612,000 exercisable stock options, respectively.

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

#### 18. Earnings (Loss) Per Common Share of Continuing Operations

A reconciliation of the numerator and denominator of earnings (loss) per common share of continuing operations to earnings (loss) per common share of continuing operations assuming dilution is as follows (in millions):

	<u>Year Ended December 31,</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
EPS from continuing operations – basic:			
Income (loss) from continuing operations	\$ 37.5	\$ (4.8)	\$ (18.1)
Less: preferred stock dividends	<u>(6.0)</u>	<u>(0.6)</u>	<u>-</u>
Income (loss) from continuing operations for basic EPS computation <sup>(1)</sup>	<u>\$ 31.5</u>	<u>\$ (5.4)</u>	<u>\$ (18.1)</u>
Weighted average shares outstanding for basic EPS computation <sup>(2)</sup>	<u>39.0</u>	<u>33.6</u>	<u>33.0</u>
Earnings (loss) per common share from continuing operations - basic	<u>\$ 0.81</u>	<u>\$ (0.16)</u>	<u>\$ (0.55)</u>
EPS from continuing operations – diluted:			
Income (loss) from continuing operations	\$ 37.5	\$ (4.8)	\$ (18.1)
Less: preferred stock dividends, if applicable	<u>n/a</u>	<u>(0.6)</u>	<u>-</u>
Income (loss) from continuing operations for diluted EPS computation <sup>(1)</sup>	<u>\$ 37.5</u>	<u>\$ (5.4)</u>	<u>\$ (18.1)</u>
Weighted average shares outstanding	39.0	33.6	33.0
Dilutive effect of stock options and restricted stock units	1.0	-	-
Dilutive effect of assumed conversion of preferred stock, if applicable	<u>10.3</u>	<u>n/a</u>	<u>n/a</u>
Weighted average shares outstanding for diluted EPS computation <sup>(2)</sup>	<u>50.3</u>	<u>33.6</u>	<u>33.0</u>
Earnings (loss) per common share from continuing operations – diluted	<u>\$ 0.75</u>	<u>\$ (0.16)</u>	<u>\$ (0.55)</u>

(1) Numerator

(2) Denominator

The earnings (loss) per common share — assuming dilution computation excludes the impact of 1.6 million, 3.6 million, and 2.7 million stock options and restricted stock units in 2004, 2003 and 2002, respectively, because their impact was anti-dilutive. This computation also excludes the impact of the assumed conversion of the Company's preferred stock (which was issued in the fourth quarter of 2003) because its impact was anti-dilutive in 2003.

#### 19. Segment Information

General Cable has three reportable operating segments: energy, industrial & specialty and communications. These segments are strategic business units organized around three product categories that follow management's internal organization structure.

The energy segment manufactures and sells wire and cable products that include low-, medium- and high-voltage power distribution and power transmission products. The industrial & specialty segment manufactures and sells wire and cable products that conduct electrical current for industrial, OEM, commercial and residential power and control applications. The communications segment manufactures and sells wire and cable products that transmit low-voltage signals for voice, data, video and control applications.

Segment net sales represent sales to external customers. Segment operating income (loss) represents income (loss) from continuing operations before interest income, interest expense, other income (expense), other financial costs or income taxes.

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

The operating loss included in corporate for 2004 consisted of \$7.1 million related to the rationalization of certain of the Company's industrial cable manufacturing facilities, \$1.5 million for remediation costs of a former manufacturing facility \$2.4 million related to the unwinding of the former fiber optics joint venture and \$1.9 million related to the write-off of goodwill. The operating loss included in corporate for 2003 consisted of \$7.6 million related to the rationalization of certain of the Company's industrial cable manufacturing facilities and \$2.7 million for severance related to headcount reductions of approximately 110 associates in the Company's European operations. These charges were partially offset by \$2.1 million of income resulting from the reversal of unutilized restructuring reserves related to the closure in prior years of North American manufacturing facilities. The operating loss included in corporate for 2002 consisted of \$21.2 million related to the closure of two manufacturing plants, a \$1.7 million loss on the sale of a non-strategic United Kingdom-based specialty cables business, a \$3.6 million charge to reduce to fair value certain assets contributed to the Company's fiber optic joint venture, and \$6.9 million for severance and related costs for headcount reductions of approximately 140 associates worldwide. The accounting policies of the operating segments are the same as those described in the summary of significant accounting policies (see Note 2). The Company has recorded the operating items discussed above in the corporate segment rather than reflect such items in the energy, industrial & specialty or communications segments operating income because they are not considered in the operating performance evaluation of the energy, industrial & specialty or communications segment by the Company's chief operating decision-maker, its Chief Executive Officer.

Corporate assets included cash, deferred income taxes, certain property, including property held for sale and prepaid expenses and other current and non-current assets. Depreciation on corporate property has been allocated to the operating segments. Depreciation expense included in the corporate column represents accelerated depreciation related to the rationalization of certain Industrial plant locations.

Summarized financial information for the Company's operating segments for the years ended December 31 is as follows (in millions). Certain reclassifications have been made to the prior year to conform to the current year segment presentation.

	Energy	Industrial & Specialty	Communications	Corporate	Total
Net Sales:					
2004	\$705.7	\$734.3	\$530.7	\$ -	\$1,970.7
2003	560.2	542.4	435.8	-	1,538.4
2002	516.0	499.4	438.5	-	1,453.9
Operating Income (Loss):					
2004	39.8	23.0	6.6	(12.9)	56.5
2003	38.0	9.9	6.0	(8.2)	45.7
2002	36.9	9.7	2.5	(33.4)	15.7
Identifiable Assets:					
2004	342.9	401.0	333.5	143.4	1,220.8
2003	269.5	325.1	302.9	152.0	1,049.5
Capital Expenditures:					
2004	13.9	15.5	7.6	-	37.0
2003	6.6	8.7	3.8	-	19.1
2002	9.9	13.4	8.1	-	31.4
Depreciation Expense:					
2004	5.0	8.4	15.7	2.7	31.8
2003	5.7	9.6	14.5	-	29.8
2002	3.8	8.5	15.8	-	28.1



## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

The following table presents revenues by geographic group based on the country of origin of the product or services for the years ended December 31 (in millions):

	<u>2004</u>	<u>2003</u>	<u>2002</u>
North America	\$1,300.6	\$1,074.2	\$1,077.2
International	<u>670.1</u>	<u>464.2</u>	<u>376.7</u>
Total	<u>\$1,970.7</u>	<u>\$1,538.4</u>	<u>\$1,453.9</u>

The following table presents property, plant and equipment by geographic group based on the location of the asset as of December 31 (in millions):

	<u>2004</u>	<u>2003</u>
North America	\$213.4	\$219.0
International	<u>142.6</u>	<u>114.3</u>
Total	<u>\$356.0</u>	<u>\$333.3</u>

#### 20. Commitments and Contingencies

Certain present and former operating sites, or portions thereof, currently or previously owned or leased by current or former operating units of General Cable are the subject of investigations, monitoring or remediation under the United States Federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund), the Federal Resource Conservation and Recovery Act or comparable state statutes or agreements with third parties. These proceedings are in various stages ranging from initial investigations to active settlement negotiations to implementation of the cleanup or remediation of sites.

Certain present and former operating units of General Cable in the United States have been named as potentially responsible parties (PRPs) at several off-site disposal sites under CERCLA or comparable state statutes in federal court proceedings. In each of these matters, the operating unit of General Cable is working with the governmental agencies involved and other PRPs to address environmental claims in a responsible and appropriate manner.

At December 31, 2004 and 2003, General Cable had an accrued liability of approximately \$3.6 million and \$5.4 million, respectively, for various environmental-related liabilities of which General Cable is aware. American Premier Underwriters Inc., a former parent of General Cable, agreed to indemnify General Cable against all environmental-related liabilities arising out of General Cable's or its predecessors' ownership or operation of the Indiana Steel & Wire Company and Marathon Manufacturing Holdings, Inc. businesses (which were divested by General Cable), without limitation as to time or amount. While it is difficult to estimate future environmental-related liabilities accurately, General Cable does not currently anticipate any material adverse impact on its results of operations, financial position or cash flows as a result of compliance with federal, state, local or foreign environmental laws or regulations or cleanup costs of the sites discussed above.

As part of the acquisition of the worldwide energy cable and cable systems business of BICC plc, BICC plc agreed to indemnify General Cable against environmental liabilities existing at the date of the closing of the purchase of the business. The indemnity is for an eight-year period ending in 2007 while General Cable operates the businesses subject to certain sharing of losses (with BICC plc covering 95% of losses in the first three years, 80% in years four and five and 60% in the remaining three years). The indemnity is also subject to the overall indemnity limit of \$150 million, which applies to all warranty and indemnity claims in the transaction. In addition, BICC plc assumed responsibility for cleanup of certain specific conditions at several sites operated by General Cable and cleanup is mostly complete at those sites. In the sale of the European businesses to Pirelli in August 2000, the Company generally indemnified Pirelli against any environmental-related liabilities on the same basis as BICC plc indemnified the Company in the earlier acquisition. However, the indemnity the Company received from BICC plc related to the European businesses sold to Pirelli terminated upon the sale of those businesses to Pirelli. At this time, there are no claims outstanding under the general indemnity provided by BICC plc. In addition, the Company generally indemnified Pirelli against other claims relating to the prior operation of the business. Pirelli has asserted claims under this indemnification. The Company is continuing to investigate these claims and believes that the reserves currently included in the Company's balance sheet are adequate to cover any obligation it may have.

General Cable has agreed to indemnify Raychem HTS Canada, Inc. against certain environmental liabilities arising out of the operation of the business it sold to Raychem HTS Canada, Inc. prior to its sale. The indemnity generally is for a five year

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

period from the closing of the sale and is subject to an overall limit of \$60 million. At this time, there are no claims outstanding under this indemnity.

General Cable has also agreed to indemnify Southwire Company against certain environmental liabilities arising out of the operation of the business it sold to Southwire prior to its sale. The indemnity is for a ten year period from the closing of the sale and is subject to an overall limit of \$20 million. At this time, there are no claims outstanding under this indemnity.

In addition, Company subsidiaries have been named as defendants in lawsuits alleging exposure to asbestos in products manufactured by the Company. At December 31, 2004, there were approximately 16,300 non-maritime claims and 33,200 maritime asbestos claims outstanding. During 2004, some 418 new non-maritime claims and 173 maritime claims were filed; 22 non-maritime claims and no maritime claims were dismissed, settled or otherwise disposed of in that period. At December 31, 2004 and 2003, General Cable had accrued approximately \$3.0 million and \$1.6 million, respectively, for these lawsuits.

The Company does not believe that the outcome of the litigation will have a material adverse effect on its results of operations, financial position or cash flows.

General Cable is also involved in various routine legal proceedings and administrative actions. Such proceedings and actions should not, individually or in the aggregate, have a material adverse effect on its result of operations, cash flows or financial position.

General Cable has entered into various operating lease agreements related principally to certain administrative, manufacturing and distribution facilities and transportation equipment. Future minimum rental payments required under non-cancelable lease agreements at December 31, 2004 were as follows: 2005 - \$7.6 million, 2006 - \$7.4 million, 2007 - \$5.0 million, 2008 - \$3.6 million, 2009 - \$2.9 million, and thereafter \$16.2 million. Rental expense recorded in income from continuing operations was \$10.3 million, \$11.9 million and \$10.3 million for the years ended December 31, 2004, 2003 and 2002, respectively.

#### **21. Related Party Transactions**

In May of 2002, General Cable formed a joint venture company to manufacture and market fiber optic cables. General Cable contributed assets, primarily inventory and machinery and equipment, to a subsidiary company, which was then contributed to the joint venture in exchange for a \$10.2 million note receivable, which resulted in a \$5.6 million deferred gain on the transaction. Beginning in the first quarter of 2004, the Company was required to consolidate the joint venture company as a result of the adoption of FIN No. 46, as revised. In January 2004, the Company reduced its ownership percentage from 49% to 40% and as a result the deferred gain was reduced to \$4.8 million. During the fourth quarter of 2004, the Company exchanged the note receivable from the joint venture partner for the partner's ownership interest in the joint venture company. The acquired ownership interest was recorded at fair market value, which was \$2.4 million less than the carrying value of the note receivable net of the deferred gain, resulting in a charge to SG&A expense in the fourth quarter of 2004. As of December 31, 2004, General Cable owns 100% of the joint venture company.

The joint venture company manufactured and sold to General Cable all of the fiber optic cable products that General Cable sells to its customers. During the years ended December 31, 2004 and 2003 and the eight month period ended December 31, 2002, General Cable purchased approximately \$16.0 million, \$20.2 million and \$12.2 million from the joint venture company. At December 31, 2003, General Cable had a \$1.0 million payable to the joint venture company for these purchases.

General Cable sold fiber to the joint venture company. During the years ended December 31, 2004 and 2003 and the eight month period ended December 31, 2002, General Cable sold approximately \$8.7 million, \$10.4 million and \$6.8 million to the joint venture company. At December 31, 2003, General Cable had a \$1.0 million receivable from the joint venture company for these transactions.

For the year ended December 31, 2004, the joint venture company had sales of \$21.4 million, an operating loss of \$(4.0) million and a net loss of \$(4.1) million. For the year ended December 31, 2003, the joint venture company had sales of \$20.6 million and an operating loss and net loss of \$(0.6) million. At December 31, 2003, the joint venture company had total assets of \$10.0 million, total liabilities of \$2.9 million and total equity of \$7.1 million. For the eight month period ended December

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

31, 2002, the joint venture company had sales of \$12.3 million and an operating loss and net loss of \$(1.2) million. At December 31, 2002, the joint venture company had total assets of \$12.9 million, total liabilities of \$5.1 million and total equity of \$7.8 million.

#### 22. Quarterly Operating Results (Unaudited)

The interim financial information is unaudited. In the opinion of management, the interim financial information reflects all adjustments necessary for a fair presentation of quarterly financial information. Quarterly results have been influenced by seasonal factors inherent in General Cable's businesses. The sum of the quarter's earnings (loss) per share amounts may not add to full year earnings per share because each quarter is calculated independently. Summarized historical quarterly financial data for 2004 and 2003 are set forth below (in millions, except per share data):

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
<b>2004 <sup>(1)</sup></b>				
Net sales	\$ 478.6	\$517.5	\$489.3	\$ 485.3
Gross profit	45.4	55.2	58.8	55.3
Income (loss) from continuing operations	(1.9)	5.2	7.4	26.8
Gain on disposal of discontinued operations	-	-	-	0.4
Net income (loss)	(1.9)	5.2	7.4	27.2
Net income (loss) applicable to common shareholders	(3.4)	3.7	5.9	25.7
Earnings (loss) per common share of continuing operations	\$ (0.09)	\$ 0.09	\$ 0.15	\$ 0.65
Earnings (loss) per common share of continuing operations – assuming dilution	\$ (0.09)	\$ 0.09	\$ 0.15	\$ 0.53
Earnings of discontinued operations per common share	\$ -	\$ -	\$ -	\$ 0.01
Earnings of discontinued operations per common share – assuming dilution	\$ -	\$ -	\$ -	\$ 0.01
Earnings (loss) per common share	\$ (0.09)	\$ 0.09	\$ 0.15	\$ 0.66
Earnings (loss) per common share – assuming dilution	\$ (0.09)	\$ 0.09	\$ 0.15	\$ 0.54
	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter <sup>(2)</sup></u>
<b>2003</b>				
Net sales	\$ 352.6	\$398.0	\$382.5	\$ 405.3
Gross profit	42.4	46.6	45.4	39.0
Net income (loss)	0.1	3.0	2.1	(10.0)
Net income (loss) applicable to common shareholders	0.1	3.0	2.1	(10.6)
Earnings (loss) per common share	\$ -	\$ 0.09	\$ 0.06	\$ (0.30)
Earnings (loss) per common share – assuming dilution	\$ -	\$ 0.09	\$ 0.06	\$ (0.30)

(1) During 2004, charges related to the rationalization of industrial cable manufacturing facilities of \$2.7 million, \$1.6 million, \$2.0 million and \$0.8 million were included in the first, second, third and fourth quarters. Additionally, the third quarter of 2004 included a \$1.5 million charge for remediation costs and the fourth quarter of 2004 included a \$2.4 million charge related to the wind-down of the Company's former fiber optics joint venture, a \$1.9 million charge for the write-off of goodwill and a \$23.3 million income tax benefit due to the elimination of certain prior year tax exposures.

(2) The fourth quarter of 2003 includes charges of \$7.6 million related to the rationalization of industrial cable manufacturing facilities, \$1.0 million for severance related to headcount reductions in Europe and income of \$2.1 million related to the reversal of unutilized restructuring reserves. See Note 10 for further discussion.

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Notes to Consolidated Financial Statements - (Continued)

### 23. Supplemental Guarantor Information

General Cable Corporation and its material North American wholly-owned subsidiaries fully and unconditionally guarantee the \$285.0 million of Senior Notes due 2010 of General Cable Corporation (the Issuer) on a joint and several basis. The following presents financial information about the Issuer, guarantor subsidiaries and non-guarantor subsidiaries in millions. All of the Company's subsidiaries are "restricted subsidiaries" for purposes of the Senior Notes. Intercompany transactions are eliminated.

#### Statements of Operations Year Ended December 31, 2004

	<u>Issuer</u>	<u>Guarantor Subsidiaries</u>	<u>Non-Guarantor Subsidiaries</u>	<u>Eliminations</u>	<u>Total</u>
Net sales:					
Customers	\$ -	\$1,298.4	\$ 672.3	\$ -	\$1,970.7
Intercompany	<u>399.2</u>	<u>-</u>	<u>20.4</u>	<u>(419.6)</u>	<u>-</u>
	399.2	1,298.4	692.7	(419.6)	1,970.7
Cost of sales	<u>343.2</u>	<u>1,185.3</u>	<u>587.7</u>	<u>(360.2)</u>	<u>1,756.0</u>
Gross profit	56.0	113.1	105.0	(59.4)	214.7
Selling, general and administrative expenses	<u>49.5</u>	<u>115.8</u>	<u>52.3</u>	<u>(59.4)</u>	<u>158.2</u>
Operating income (loss)	6.5	(2.7)	52.7	-	56.5
Other expense	(0.9)	(0.3)	-	-	(1.2)
Interest income (expense):					
Interest expense	(30.2)	(51.1)	(4.6)	48.2	(37.7)
Interest income	<u>38.8</u>	<u>4.1</u>	<u>7.1</u>	<u>(48.2)</u>	<u>1.8</u>
	<u>8.6</u>	<u>(47.0)</u>	<u>2.5</u>	<u>-</u>	<u>(35.9)</u>
Income (loss) from continuing operations before income taxes	14.2	(50.0)	55.2	-	19.4
Income tax (provision) benefit	<u>(5.0)</u>	<u>41.5</u>	<u>(18.4)</u>	<u>-</u>	<u>18.1</u>
Income (loss) from continuing operations	9.2	(8.5)	36.8	-	37.5
Gain on disposal of discontinued operations (net of tax)	<u>-</u>	<u>0.4</u>	<u>-</u>	<u>-</u>	<u>0.4</u>
Net income (loss)	9.2	(8.1)	36.8	-	37.9
Less: preferred stock dividends	<u>(6.0)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(6.0)</u>
Net income (loss) applicable to common shareholders	<u>\$ 3.2</u>	<u>\$ (8.1)</u>	<u>\$ 36.8</u>	<u>\$ -</u>	<u>\$ 31.9</u>

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Notes to Consolidated Financial Statements - (Continued)

### Statements of Operations Year Ended December 31, 2003

	Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Net sales:					
Customers	\$ -	\$1,074.2	\$ 464.2	\$ -	\$1,538.4
Intercompany	28.8	-	-	(28.8)	-
	28.8	1,074.2	464.2	(28.8)	1,538.4
Cost of sales	-	1,011.3	382.5	(28.8)	1,365.0
Gross profit	28.8	62.9	81.7	-	173.4
Selling, general and administrative expenses	22.7	69.0	36.0	-	127.7
Operating income (loss)	6.1	(6.1)	45.7	-	45.7
Other income	1.5	-	-	-	1.5
Interest income (expense):					
Interest expense	(40.2)	(71.3)	(3.0)	70.6	(43.9)
Interest income	56.3	14.4	0.7	(70.6)	0.8
Other financial costs	(5.1)	(0.9)	-	-	(6.0)
	11.0	(57.8)	(2.3)	-	(49.1)
Income (loss) before income taxes	18.6	(63.9)	43.4	-	(1.9)
Income tax (provision) benefit	(6.5)	18.3	(14.7)	-	(2.9)
Net income (loss)	12.1	(45.6)	28.7	-	(4.8)
Less: preferred stock dividends	(0.6)	-	-	-	(0.6)
Net income (loss) applicable to common shareholders	\$ 11.5	\$ (45.6)	\$ 28.7	\$ -	\$ (5.4)

### Statements of Operations Year Ended December 31, 2002

	Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Net sales:					
Customers	\$ -	\$1,077.2	\$ 376.7	\$ -	\$ 1,453.9
Intercompany	25.6	-	-	(25.6)	-
	25.6	1,077.2	376.7	(25.6)	1,453.9
Cost of sales	-	998.1	314.8	(25.6)	1,287.3
Gross profit	25.6	79.1	61.9	-	166.6
Selling, general and administrative expenses	20.7	102.4	27.8	-	150.9
Operating income (loss)	4.9	(23.3)	34.1	-	15.7
Interest income (expense):					
Interest expense	(37.4)	(66.1)	(6.3)	65.9	(43.9)
Interest income	44.4	20.8	2.0	(65.9)	1.3
Other financial costs	(1.1)	-	-	-	(1.1)
	5.9	(45.3)	(4.3)	-	(43.7)
Income (loss) from continuing operations before income taxes	10.8	(68.6)	29.8	-	(28.0)
Income tax (provision) benefit	(3.8)	24.3	(10.6)	-	9.9
Income (loss) from continuing operations	7.0	(44.3)	19.2	-	(18.1)
Loss on disposal of discontinued operations (net of tax)	-	(5.9)	-	-	(5.9)
Net income (loss)	\$ 7.0	\$ (50.2)	\$ 19.2	\$ -	\$ (24.0)

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Notes to Consolidated Financial Statements - (Continued)

### Condensed Balance Sheets December 31, 2004

	<u>Issuer</u>	<u>Guarantor Subsidiaries</u>	<u>Non-Guarantor Subsidiaries</u>	<u>Eliminations</u>	<u>Total</u>
<b><u>Assets</u></b>					
Current assets:					
Cash	\$ 0.1	\$ 7.3	\$ 29.0	\$ -	\$ 36.4
Receivables, net of allowances	-	166.5	184.4	-	350.9
Inventories	-	205.6	109.9	-	315.5
Deferred income taxes	-	22.3	0.7	-	23.0
Prepaid expenses and other	<u>1.2</u>	<u>30.4</u>	<u>7.2</u>	<u>-</u>	<u>38.8</u>
Total current assets	1.3	432.1	331.2	-	764.6
 Property, plant and equipment, net	0.2	210.1	145.7	-	356.0
Deferred income taxes	-	63.1	2.6	-	65.7
Intercompany accounts	658.2	100.7	189.9	(948.8)	-
Investment in subsidiaries	33.7	248.1	-	(281.8)	-
Other non-current assets	<u>5.9</u>	<u>28.5</u>	<u>0.1</u>	<u>-</u>	<u>34.5</u>
 Total assets	<u>\$ 699.3</u>	<u>\$1,082.6</u>	<u>\$669.5</u>	<u>\$(1,230.6)</u>	<u>\$1,220.8</u>
<b><u>Liabilities and Shareholders' Equity</u></b>					
Current liabilities:					
Accounts payable	\$ -	\$ 126.7	\$230.7	\$ -	\$ 357.4
Accrued liabilities	8.9	68.4	30.8	-	108.1
Current portion of long-term debt	<u>-</u>	<u>-</u>	<u>1.1</u>	<u>-</u>	<u>1.1</u>
Total current liabilities	8.9	195.1	262.6	-	466.6
 Long-term debt	285.0	87.6	1.2	-	373.8
Deferred income taxes	-	3.7	11.6	-	15.3
Intercompany accounts	37.7	806.5	104.6	(948.8)	-
Other liabilities	<u>32.9</u>	<u>27.7</u>	<u>3.1</u>	<u>-</u>	<u>63.7</u>
Total liabilities	364.5	1,120.6	383.1	(948.8)	919.4
 Total shareholders' equity (deficit)	<u>334.8</u>	<u>(38.0)</u>	<u>286.4</u>	<u>(281.8)</u>	<u>301.4</u>
 Total liability and shareholders' equity	<u>\$ 699.3</u>	<u>\$1,082.6</u>	<u>\$669.5</u>	<u>\$(1,230.6)</u>	<u>\$1,220.8</u>

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Notes to Consolidated Financial Statements - (Continued)

### Condensed Balance Sheets December 31, 2003

	Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
<b><u>Assets</u></b>					
Current assets:					
Cash	\$ -	\$ 3.7	\$ 21.4	\$ -	\$ 25.1
Receivables, net of allowances	-	149.2	119.7	-	268.9
Inventories	-	169.9	86.8	-	256.7
Deferred income taxes	1.5	12.0	-	-	13.5
Prepaid expenses and other	<u>1.2</u>	<u>22.8</u>	<u>0.9</u>	-	<u>24.9</u>
Total current assets	2.7	357.6	228.8	-	589.1
Property, plant and equipment, net	0.5	218.5	114.3	-	333.3
Deferred income taxes	-	72.5	4.0	-	76.5
Intercompany accounts	623.4	132.4	163.6	(919.4)	-
Investment in subsidiaries	33.7	345.3	-	(379.0)	-
Other non-current assets	<u>7.0</u>	<u>42.8</u>	<u>0.8</u>	-	<u>50.6</u>
Total assets	<u>\$ 667.3</u>	<u>\$1,169.1</u>	<u>\$511.5</u>	<u>\$(1,298.4)</u>	<u>\$1,049.5</u>
<b><u>Liabilities and Shareholders' Equity</u></b>					
Current liabilities:					
Accounts payable	\$ -	\$ 104.5	\$146.1	\$ -	\$ 250.6
Accrued liabilities	8.1	73.0	18.5	-	99.6
Current portion of long-term debt	-	-	<u>2.3</u>	-	<u>2.3</u>
Total current liabilities	8.1	177.5	166.9	-	352.5
Long-term debt	285.0	52.1	1.0	-	338.1
Deferred income taxes	-	2.7	6.9	-	9.6
Intercompany accounts	31.2	761.5	126.7	(919.4)	-
Other liabilities	<u>32.9</u>	<u>67.8</u>	<u>8.5</u>	-	<u>109.2</u>
Total liabilities	357.2	1,061.6	310.0	(919.4)	809.4
Total shareholders' equity	<u>310.1</u>	<u>107.5</u>	<u>201.5</u>	<u>(379.0)</u>	<u>240.1</u>
Total liability and shareholders' equity	<u>\$ 667.3</u>	<u>\$1,169.1</u>	<u>\$511.5</u>	<u>\$(1,298.4)</u>	<u>\$1,049.5</u>

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Notes to Consolidated Financial Statements - (Continued)

### Statements of Cash Flows Year Ended December 31, 2004

	Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Cash flows of operating activities:					
Net income (loss)	\$ 9.2	\$ (8.1)	\$ 36.8	\$ -	\$ 37.9
Adjustment to reconcile net income (loss) to net cash provided by (used by) operating activities:					
Depreciation and amortization	0.3	31.7	3.4	-	35.4
Foreign currency exchange loss	0.9	0.3	-	-	1.2
Loss on joint venture wind-down	-	4.2	-	-	4.2
Deferred income taxes	(5.0)	(1.5)	7.1	-	0.6
Settlement of tax items	-	(23.3)	-	-	(23.3)
(Gain) loss on disposal of property and businesses	-	(0.6)	0.1	-	(0.5)
Changes in operating assets and liabilities, net of effect of acquisitions and divestitures:					
Increase in receivables	-	(17.3)	(46.4)	-	(63.7)
Increase in inventories	-	(35.7)	(9.6)	-	(45.3)
(Increase) decrease in other assets	1.1	(1.1)	(12.8)	-	(12.8)
Increase (decrease) in accounts payable, accrued and other liabilities	0.8	11.1	66.9	-	78.8
Net cash flows of operating activities	<u>7.3</u>	<u>(40.3)</u>	<u>45.5</u>	<u>-</u>	<u>12.5</u>
Cash flows of investing activities:					
Capital expenditures	-	(17.4)	(19.6)	-	(37.0)
Proceeds from properties sold	-	2.5	0.1	-	2.6
Other, net	-	(7.9)	6.0	-	(1.9)
Net cash flows of investing activities	<u>-</u>	<u>(22.8)</u>	<u>(13.5)</u>	<u>-</u>	<u>(36.3)</u>
Cash flows of financing activities:					
Dividends paid	(6.0)	-	-	-	(6.0)
Repayment of loans from shareholders	0.4	-	-	-	0.4
Intercompany accounts	(2.7)	30.9	(28.2)	-	-
Net change in revolving credit borrowings	-	35.6	-	-	35.6
Net change in other debt	-	(0.1)	(2.2)	-	(2.3)
Proceeds from exercise of stock options	1.1	-	-	-	1.1
Net cash flows of financing activities	<u>(7.2)</u>	<u>66.4</u>	<u>(30.4)</u>	<u>-</u>	<u>28.8</u>
Effect of exchange rate changes on cash	<u>-</u>	<u>0.3</u>	<u>6.0</u>	<u>-</u>	<u>6.3</u>
Increase in cash	0.1	3.6	7.6	-	11.3
Cash - beginning of period	<u>-</u>	<u>3.7</u>	<u>21.4</u>	<u>-</u>	<u>25.1</u>
Cash - end of period	<u>\$ 0.1</u>	<u>\$ 7.3</u>	<u>\$ 29.0</u>	<u>\$ -</u>	<u>\$ 36.4</u>



# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Notes to Consolidated Financial Statements - (Continued)

### Statements of Cash Flows Year Ended December 31, 2003

	Issuer	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Total
Cash flows of operating activities:					
Net income (loss)	\$ 12.1	\$ (45.6)	\$ 28.7	\$ -	\$ (4.8)
Adjustment to reconcile net income (loss) to net cash provided by (used by) operating activities:					
Depreciation and amortization	0.5	30.8	2.1	-	33.4
Foreign currency exchange gain	(1.5)	-	-	-	(1.5)
Deferred income taxes	-	(2.9)	(3.6)	-	(6.5)
Loss on disposal of property and businesses	-	6.8	-	-	6.8
Changes in operating assets and liabilities, net of effect of acquisitions and divestitures:					
Purchase of receivables	-	(80.0)	-	-	(80.0)
Decrease in receivables	-	23.0	4.8	-	27.8
Decrease in inventories	-	13.1	3.8	-	16.9
Decrease in other assets	2.0	11.9	0.6	-	14.5
Increase (decrease) in accounts payable, accrued and other liabilities	1.9	(12.4)	(10.6)	-	(21.1)
Net cash flows of operating activities	<u>15.0</u>	<u>(55.3)</u>	<u>25.8</u>	<u>-</u>	<u>(14.5)</u>
Cash flows of investing activities:					
Capital expenditures	-	(8.9)	(10.2)	-	(19.1)
Proceeds from properties sold	-	2.4	0.1	-	2.5
Other, net	-	(0.1)	(3.0)	-	(3.1)
Net cash flows of investing activities	<u>-</u>	<u>(6.6)</u>	<u>(13.1)</u>	<u>-</u>	<u>(19.7)</u>
Cash flows of financing activities:					
Common stock issued, net of fees and expenses	44.6	-	-	-	44.6
Preferred stock issued, net of fees and expenses	99.5	-	-	-	99.5
Repayment of loans from shareholders	-	1.0	-	-	1.0
Intercompany accounts	(131.6)	90.8	40.8	-	-
Net change in revolving credit borrowings	(57.9)	22.7	-	-	(35.2)
Net change in other debt	-	-	(26.0)	-	(26.0)
Issuance of long term debt, net of fees and expenses	276.6	-	-	-	276.6
Repayment of long-term debt	(246.2)	(57.0)	(30.1)	-	(333.3)
Net cash flows of financing activities	<u>(15.0)</u>	<u>57.5</u>	<u>(15.3)</u>	<u>-</u>	<u>27.2</u>
Effect of exchange rate changes on cash	<u>-</u>	<u>-</u>	<u>3.0</u>	<u>-</u>	<u>3.0</u>
Increase (decrease) in cash	-	(4.4)	0.4	-	(4.0)
Cash - beginning of period	<u>-</u>	<u>8.1</u>	<u>21.0</u>	<u>-</u>	<u>29.1</u>
Cash - end of period	<u>\$ -</u>	<u>\$ 3.7</u>	<u>\$ 21.4</u>	<u>\$ -</u>	<u>\$ 25.1</u>

# GENERAL CABLE CORPORATION AND SUBSIDIARIES

## Notes to Consolidated Financial Statements - (Continued)

### Statements of Cash Flows Year Ended December 31, 2002

	<u>Issuer</u>	<u>Guarantor Subsidiaries</u>	<u>Non-Guarantor Subsidiaries</u>	<u>Eliminations</u>	<u>Total</u>
Cash flows of operating activities:					
Net income (loss)	\$ 7.0	\$ (50.2)	\$ 19.2	\$ -	\$(24.0)
Adjustment to reconcile net income (loss) to net cash provided by operating activities:					
Depreciation and amortization	1.1	29.0	0.5	-	30.6
Deferred income taxes	0.2	12.7	1.5	-	14.4
Loss on sale of business	-	1.7	-	-	1.7
Changes in operating assets and liabilities, net of effect of acquisitions and divestitures:					
Decrease in receivables	-	7.0	8.1	-	15.1
(Increase) decrease in inventories	-	65.8	(4.3)	-	61.5
(Increase) decrease in other assets	4.4	(13.4)	1.0	-	(8.0)
Decrease in accounts payable, accrued and other liabilities	<u>(2.8)</u>	<u>(19.1)</u>	<u>(12.1)</u>	<u>-</u>	<u>(34.0)</u>
Net cash flows of operating activities	<u>9.9</u>	<u>33.5</u>	<u>13.9</u>	<u>-</u>	<u>57.3</u>
Cash flows of investing activities:					
Capital expenditures	(0.2)	(17.3)	(13.9)	-	(31.4)
Proceeds from sale of businesses, net of cash sold	-	1.7	-	-	1.7
Proceeds from properties sold	-	1.2	0.4	-	1.6
Other, net	<u>-</u>	<u>(0.3)</u>	<u>(1.6)</u>	<u>-</u>	<u>(1.9)</u>
Net cash flows of investing activities	<u>(0.2)</u>	<u>(14.7)</u>	<u>(15.1)</u>	<u>-</u>	<u>(30.0)</u>
Cash flows of financing activities:					
Dividends paid	(5.0)	-	-	-	(5.0)
Intercompany accounts	(6.9)	(2.6)	9.5	-	-
Net changes in revolving credit borrowings	0.5	(2.7)	-	-	(2.2)
Net change in other debt	-	3.5	0.5	-	4.0
Repayment of long-term debt	(0.7)	(15.5)	0.8	-	(15.4)
Proceeds from exercise of stock options	<u>2.4</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2.4</u>
Net cash flows of financing activities	<u>(9.7)</u>	<u>(17.3)</u>	<u>10.8</u>	<u>-</u>	<u>(16.2)</u>
Effect of exchange rate changes in cash	<u>-</u>	<u>(0.2)</u>	<u>1.6</u>	<u>-</u>	<u>1.4</u>
Increase in cash	-	1.3	11.2	-	12.5
Cash - beginning of period	<u>-</u>	<u>6.8</u>	<u>9.8</u>	<u>-</u>	<u>16.6</u>
Cash - end of period	<u>\$ -</u>	<u>\$ 8.1</u>	<u>\$ 21.0</u>	<u>\$ -</u>	<u>\$ 29.1</u>

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

### Notes to Consolidated Financial Statements - (Continued)

#### **24. Subsequent Events**

On March 14, 2005, the Company acquired certain assets of Draka Comteq's business in North America for \$7.5 million, subject to post-closing adjustments. The assets acquired included machinery and equipment, inventory and prepaid assets, net of the assumption of trade payables. The net assets acquired are located in Franklin, Massachusetts and manufacture specialty electronics and datacom products.

On March 21, 2005, union workers at the Company's Lincoln, Rhode Island manufacturing facility commenced a strike. As of March 30, 2005, the parties had not reached agreement on a new contract and therefore the union workers remained on strike. Both parties are continuing to work together to reach a new contract. The Company does not expect that the strike will have a significant impact on its financial results for the first quarter of 2005.

In March of 2005, the Company received notification that a tax audit had been settled. Certain tax exposures related to the periods under audit were eliminated. As a result, an income tax benefit of \$22.3 million was recognized in the financial statements for the period ended December 31, 2004.

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

Valuation and Qualifying Accounts  
(in millions)

	For the Years Ended December 31,		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
Accounts Receivable Allowances:			
Beginning balance	\$15.6	\$11.6	\$11.4
Impact of foreign currency exchange rate change	1.0	1.3	0.8
Provision	3.3	4.8	3.5
Write-offs	<u>(3.9)</u>	<u>(2.1)</u>	<u>(4.1)</u>
Ending balance	<u>\$16.0</u>	<u>\$15.6</u>	<u>\$11.6</u>
Deferred Tax Valuation Allowance:			
Beginning balance	\$19.0	\$19.2	\$ 5.6
Additions charged to expense	-	1.5	16.6
Reductions from utilization and reassessments	<u>(1.5)</u>	<u>(1.7)</u>	<u>(3.0)</u>
Ending balance	<u>\$17.5</u>	<u>\$19.0</u>	<u>\$19.2</u>

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

Computation of Ratio of Earnings to Fixed Charges  
(in millions)

	Years ended December 31,				
	<u>2004</u>	<u>2003</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
EARNINGS AS DEFINED					
Earnings (loss) from operations before income taxes and before adjustments for minority interests in consolidated subsidiaries and after eliminating undistributed earnings of equity method investees	\$18.5	\$(1.2)	\$(27.6)	\$ 58.1	\$(28.9)
Preferred stock dividend (pre-tax equivalent)	(9.2)	(0.9)	-	-	-
Fixed charges	<u>49.4</u>	<u>53.6</u>	<u>47.5</u>	<u>51.5</u>	<u>67.8</u>
TOTAL EARNINGS, AS DEFINED	<u>\$58.7</u>	<u>\$51.5</u>	<u>\$ 19.9</u>	<u>\$109.6</u>	<u>\$ 38.9</u>
FIXED CHARGES, AS DEFINED					
Interest expense	\$35.0	\$45.3	\$ 41.3	\$ 43.2	\$ 61.4
Amortization of capitalized expenses related to debt	2.7	4.5	3.7	4.4	4.2
Preferred stock dividend (pre-tax equivalent)	9.2	0.9	-	-	-
Interest component of rent expense	<u>2.5</u>	<u>2.9</u>	<u>2.5</u>	<u>3.9</u>	<u>2.2</u>
TOTAL FIXED CHARGES, AS DEFINED	<u>\$49.4</u>	<u>\$53.6</u>	<u>\$ 47.5</u>	<u>\$ 51.5</u>	<u>\$ 67.8</u>
RATIO OF EARNINGS TO FIXED CHARGES	1.2	-	-	2.1	-

For the years ended December 31, 2003, 2002 and 2000, earnings were insufficient to cover fixed charges by \$2.1 million \$27.6 million and \$28.9 million, respectively.

## GENERAL CABLE CORPORATION AND SUBSIDIARIES

## List of Subsidiaries

<u>Name</u>	<u>Jurisdiction of Incorporation</u>
Dominion Wire and Cables Ltd.	Fiji
General Cable Canada, Ltd.	Ontario
General Cable Celcat Energia e Telecomunicaciones SA	Portugal
General Cable Company	Nova Scotia
General Cable Corporation	Delaware
General Cable de Latinoamerica, S.A. de C.V.	Mexico
General Cable de Mexico del Norte, S.A. de C.V.	Mexico
General Cable Holdings (Spain) SRL	Spain
General Cable Holdings de Mexico, S.A. de C.V.	Mexico
General Cable Holdings New Zealand	New Zealand
General Cable Industries, Inc.	Delaware
General Cable Industries, LLC	Delaware
General Cable Investments, SGPS SA.	Madeira
General Cable New Zealand Limited	New Zealand
General Cable Overseas Holdings, Inc.	Delaware
General Cable Technologies Corporation	Delaware
GK Technologies, Inc.	New Jersey
Grupo General Cable Sistemas, SA.	Spain
Marathon Manufacturing Holdings, Inc.	Delaware
NextGen Fiber Optics, LLC	Delaware
Telmag Internacional, S.A. de C.V.	Mexico

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

GENERAL CABLE CORPORATION

We consent to the incorporation by reference in Registration Statement Nos. 333-28965, 333-31865, 333-31867, 333-31869, 333-31871, 333-89629, 333-51812, 333-51818, 333-51822 and 333-58792 on Form S-8; Post-effective Amendment No. 1 to Registration Statement No. 333-59125 on Form S-8; and Registration Statement No. 333-108950 on Form S-3 of our report dated March 30, 2005, relating to the financial statements and financial statement schedule of General Cable Corporation, appearing in this Annual Report on Form 10-K of General Cable Corporation for the year ended December 31, 2004.

DELOITTE & TOUCHE LLP

Cincinnati, Ohio  
March 30, 2005

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER**

I, Gregory B. Kenny, certify that:

- 1) I have reviewed this Form 10-K of General Cable Corporation;
- 2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
  - (b) [Paragraph omitted pursuant to SEC Release Nos. 33-8238 and 34-47986];
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors:
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 30, 2005

s/GREGORY B. KENNY

Gregory B. Kenny

President and Chief Executive Officer



**CERTIFICATION OF CHIEF FINANCIAL OFFICER**

I, Christopher F. Virgulak, certify that:

- 1) I have reviewed this Form 10-K of General Cable Corporation;
- 2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
  - (b) [Paragraph omitted pursuant to SEC Release Nos. 33-8238 and 34-47986];
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors:
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 30, 2005

CHRISTOPHER F. VIRGULAK

Christopher F. Virgulak

Executive Vice President, Chief Financial Officer and Treasurer

**GENERAL CABLE CORPORATION  
CERTIFICATION PURSUANT TO  
18 U.S.C. § 1350,  
AS ADOPTED UNDER  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Section 1350 of Chapter 63 of Title 18 of the United States Code), each of the undersigned officers of General Cable Corporation (the "Company"), does hereby certify with respect to the Annual Report of the Company on Form 10-K for the year ended December 31, 2004 (the "Report") that:

- 1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 30, 2005

s/ GREGORY B. KENNY  
Gregory B. Kenny  
Chief Executive Officer

Date: March 30, 2005

s/ CHRISTOPHER F. VIRGULAK  
Christopher F. Virgulak  
Chief Financial Officer

The foregoing certification is being furnished solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Section 1350 of Chapter 63 of Title 18 of the United States Code) and is not being filed as part of the Report or as a separate disclosure document.

---

**GENERAL CABLE CORPORATION**  
4 Tesseneer Drive  
Highland Heights, KY 41076-9753  
Telephone: (859) 572-8000  
Fax: (859) 572-8458  
Website: [www.generalcable.com](http://www.generalcable.com)

---

2004 Form 10-K

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## CORPORATE INFORMATION

### WORLD HEADQUARTERS

General Cable Corporation  
4 Tessenier Drive  
Highland Heights, KY  
41076-9753 U.S.A.  
Telephone: (859) 572-8000  
Fax: (859) 572-8458  
International Fax:  
(859) 572-8058  
www.generalcable.com

### EMPLOYEES

6300 Associates

### INVESTOR INFORMATION

Copies of the Annual Report on Form 10-K filed with the Securities and Exchange Commission and other investor information may be obtained by writing or calling the Investor Relations Department (859) 572-8584.

### ANNUAL MEETING

The 2005 annual meeting of shareholders will be held at 10:00 a.m. Tuesday, May 10, 2005 at World Headquarters.

### INDEPENDENT AUDITORS

Deloitte & Touche LLP  
250 East Fifth Street  
Cincinnati, OH 45202  
(613) 784-7100

### STOCK TRANSFER AGENT

Mellon Investor Services LLC  
85 Challenger Road  
Ridgefield Park, NJ 07660  
(800) 756-3353  
Foreign Shareholders:  
(201) 329-8880  
www.melloninvestor.com

### BOARD OF DIRECTORS

Gregory B. Kenny  
President and Chief  
Executive Officer,  
General Cable Corporation

John E. Walsh, III (1)(2)(3)  
Nonexecutive Chairman,  
General Cable Corporation  
President,  
Avalon Capital Partners LLC

Gregory E. Lawton (1)(2)(3)  
President and Chief  
Executive Officer,  
JohnsonDiversey, Inc.

Craig P. Omtvedt (1)(2)(3)  
Senior Vice President and  
Chief Financial Officer,  
Fortune Brands, Inc.

Robert L. Smialek (1)(2)(3)  
Former President and  
Chief Executive Officer,  
Applied Innovation Inc.

- (1) Member of  
Audit Committee
- (2) Member of  
Compensation Committee
- (3) Member of Corporate  
Governance Committee  
\* Committee Chairman

### OFFICERS

Gregory B. Kenny  
President and  
Chief Executive Officer

Robert J. Siverd  
Executive Vice President  
and General Counsel

Christopher F. Virgulak  
Executive Vice President,  
Chief Financial Officer  
and Treasurer

### LEADERSHIP TEAM

J. Michael Andrews  
Senior Vice President and  
General Manager, Energy  
and Industrial Cables

James W. Barney  
Senior Vice President and  
General Manager,  
Communications Cables

Larry E. Fast  
Senior Vice President,  
North American Operations

Domingo Goenaga  
Senior Vice President and  
President and Chief  
Executive Officer,  
General Cable Europe

Gregory B. Kenny  
President and  
Chief Executive Officer

Gregory Lampert  
Vice President and General  
Manager, Carol Products

Roderick Macdonald  
Senior Vice President, Sales  
and Business Development

Petar J. Olmsted  
Senior Vice President,  
Human Resources

Brian J. Robinson  
Vice President and Controller

Roger A. Roundhouse  
Vice President and  
General Manager,  
Automotive and Wire  
Harness & Assemblies  
Products

Robert J. Siverd  
Executive Vice President  
and General Counsel

Elizabeth W. Tallaferra  
Senior Vice President,  
Corporate Development  
and Information Technology

Christopher F. Virgulak  
Executive Vice President,  
Chief Financial Officer  
and Treasurer

Campbell Whyte  
President and Chief  
Executive Officer,  
General Cable Oceania

### FUNCTIONAL EXECUTIVES

Lucas M. Busby  
Vice President,  
Supply Chain Management

Kenneth E. Cornelison  
Vice President, Technology,  
Communications Cables

Beth A. Curtis  
Vice President,  
Compensation and Benefits

Bruce E. Evey  
Vice President and  
Operations Team Leader,  
Energy Cables

James Freestone  
Vice President, North  
American Technology

C. Keith Grubb  
Vice President, Finance,  
Operations

Lisa B. Lawson  
Vice President,  
Corporate Communications

Stephen R. Messinger  
Vice President,  
Risk Management

Paul M. Montgomery  
Vice President, Finance and  
Investor Relations

Michael A. Monti  
Vice President and  
Operations Team Leader,  
Industrial & Specialty Cables

Pragna J. Patel  
Vice President,  
Internal Audit

Robert L. Schlossberg  
Vice President,  
Labor Relations

Todd C. Simmons  
Vice President and  
Chief Learning Officer

Mark C. Smith  
Vice President, Sourcing

Mark Thackery  
Vice President and  
Operations Team Leader,  
Communications Cables

Joffray J. Whelan  
Vice President, Tax

### SALES EXECUTIVES

Steven B. Crowley  
Vice President, Industrial  
and Specialty Sales

Patrick M. Gorman  
Vice President,  
Utility Sales

Robert C. Jamieson  
Vice President,  
Canadian Sales

Jon L. Mellon  
Vice President,  
Retail Sales

Michael L. Murphy  
Vice President, Carol and  
Data Communications Sales

Robert W. Schuermans  
Vice President,  
International Sales

Michael L. Stanley  
Vice President,  
Telecommunications Sales



**WORLD HEADQUARTERS**

**4 Tessenecer Drive**

**Highland Heights**

**Kentucky 41076-9753**

**U.S.A.**

**Telephone: (859) 572-8000**

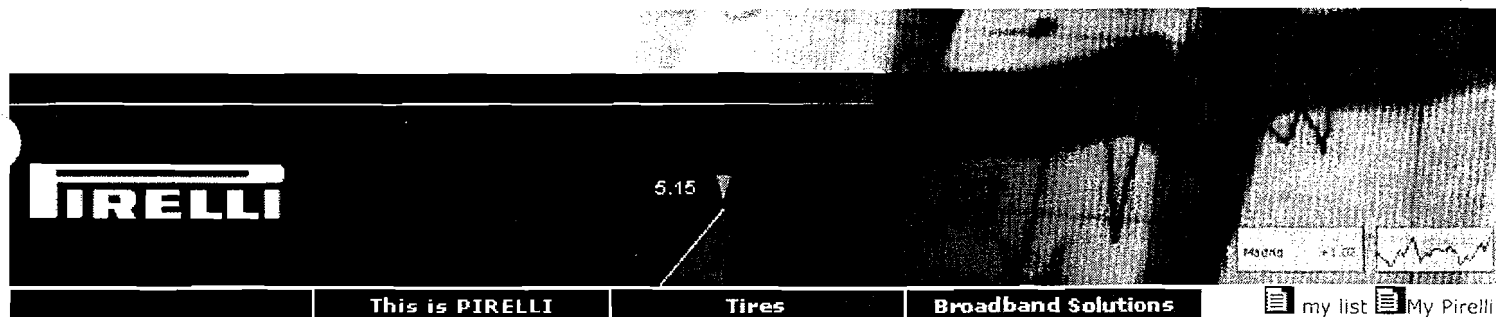
**Fax: (859) 572-8458**

**International Fax: (859) 572-8058**

**Email: [info@generalcable.com](mailto:info@generalcable.com)**

**[www.generalcable.com](http://www.generalcable.com)**







The header features the Pirelli logo on the left, a stock price of 5.15 with an upward arrow in the center, and a line graph on the right. Below the header is a navigation bar with the following links: **This is PIRELLI**, **Tires**, **Broadband Solutions**, my list, and My Pirelli.

**Company Overview**  
Careers  
**Investor Relations**  
Press Room  
Motorsport  
Communication

**PIRELLI Worldwide**



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Keywords  
  
in  
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**Pirelli Investor Relations**  
Pirelli's business is centered on the key markets of Tyres, Real Estate and Broadband Solutions, in which we are among the world leaders and innovators.  
For more than a century we have grown as a truly multinational corporation, deeply rooted in local markets throughout the world and building upon our core sectors.  
In 2001, Pirelli acquired a stake in Olivetti (now merged with Telecom Italia) through Olimpia, company participated also by Edizione Holding, IntesaBCI and Unicredito.  
At the beginning of 2003 the Olimpia shareholders' structure has been widened to Hopa.  
Pirelli & C. also controls Pirelli & C. Ambiente and holds significant capital stakes in other companies.  
With full year 2004 consolidated revenues of Euro 7 billion (including the Energy and Telecom Cables and Systems activities, sold in July 2005 to Goldman Sachs Capital Partners), Pirelli & C. employed 37,154 people all around the world, as of December 31st, 2004.  
The Group has a transparent and consistent Corporate Governance; half of the members of the Board of Directors is independent, four of which appointed by minorities.  
Since the first quarter 2005, Pirelli & C. S.p.A. figures are IAS/IFRS compliant.  
Pirelli & C. S.p.A. is listed on the Milan Stock Exchange with ticker PECI.MI.  
For further information go to the: Investor Relations section on Pirelli.com.

[Contact Us](#)[Site Map](#)[Legal Information](#)[About this Site](#)[Investor Relations](#)

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RECEIVED

DEC 29 1982

INTERSTATE SANITATION  
COMMISSION

APPLICATION  
TO  
THE U.S. ENVIRONMENTAL PROTECTION AGENCY  
FOR  
SECTION 301(h) MODIFICATION  
OF SECONDARY TREATMENT REQUIREMENTS  
FOR DISCHARGES TO THE MARINE WATERS  
OF KILL VAN KULL FOR  
THE BAYONNE SEWAGE TREATMENT PLANT

BY

THE CITY OF BAYONNE, NEW JERSEY  
KENNETH J. RAKOWSKI, P.E.  
MUNICIPAL ENGINEER

DENNIS P. COLLINS  
MAYOR

DECEMBER 29, 1982

PREPARED BY

HAZEN AND SAWYER, P.C.  
NEW YORK, N.Y.

BAJ000001



CITY OF BAYONNE  
OFFICE OF THE CITY ENGINEER  
MUNICIPAL BUILDING  
630 AVENUE "C"  
BAYONNE, NEW JERSEY 07002

29 December 1982

Ms. Jacqueline F. Schafer  
Administrator  
USEPA - Region II  
26 Federal Plaza  
Room 900  
New York, New York 10007

301(h) Application for Modification  
of NPDES Permit for the Bayonne  
Sewage Treatment Plant

Dear Ms. Schafer:


The City of Bayonne is pleased to submit herewith the original and one copy of the Application for Modification of its NPDES permit under Section 301(h) of PL 97-117 for The Bayonne Sewage Treatment Plant.

As discussed in Section I, based on currently available data and with the proposed "improved discharge" outfall with diffusers, it is estimated that all of the water quality requirements will be met by the Bayonne Sewage Treatment Plant effluent discharge in the Kill Van Kull.

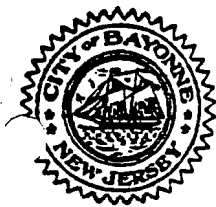
We request that the proposed Plan of Study presented in Section III be approved so that we can proceed with the survey work and additional documentation required to demonstrate compliance with Section 301(h) of PL 97-117.

Very truly yours,

CITY OF BAYONNE

  
Kenneth J. Rakowski, P.E.  
Municipal Engineer

cc: w/copy of Application  
USEPA - Office of Marine Discharge Evaluation, Washington, D.C.  
NJDEP - Commissioner Robert F. Hughey  
ISC - Director Thomas R. Glenn



CITY OF BAYONNE  
OFFICE OF THE CITY ENGINEER  
MUNICIPAL BUILDING  
630 AVENUE "C"  
BAYONNE, NEW JERSEY 07002

December 29, 1982

CERTIFICATION

For

Application for Modification of NPDES  
Permit Under Section 301 (h) of PL97-117

For

The Bayonne Sewage Treatment Plant

I certify under penalty of law that I have personally examined and am familiar with the information submitted in the attached documents, and based on my inquiry of those individuals immediately responsible for obtaining the information, I am convinced that the information is true, accurate and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

  
Kenneth J. Rakowski, P.E.  
Municipal Engineer

# HAZEN AND SAWYER, P.C.

ENGINEERS



360 LEXINGTON AVENUE • NEW YORK, N. Y. 10017 • (212) 986-0033

December 29, 1982

Mr. Marvin Eger  
Director  
Department of Finance  
City of Bayonne  
630 Avenue C  
Bayonne, New Jersey 07002

301(h) Application for Modification  
of NPDES Permit for the Bayonne  
Sewage Treatment Plant

---

Dear Mr. Eger:

Hazen and Sawyer is pleased to transmit the attached Application for Modification of the requirements of secondary treatment at the Bayonne Sewage Treatment Plant. This application is prepared under Section 301(h) of the Clean Water Act (PL 97-117), which provides for a modified NPDES permit with less than secondary treated municipal effluent to be discharged to marine waters. This Application is prepared as per our Agreement dated October 13, 1982, Phase I, Initial Application.

Based on the currently available data on the water quality of Kill Van Kull and the proposed "improved discharge" outfall extension and diffuser, it is estimated that all of the water quality requirements of Section 301(h) will be met by the Bayonne Sewage Treatment Plant effluent.

We recommend that the City of Bayonne proceed with the 301(h) Modification Application and request EPA approval of the Plan of Study so that Phase II of our contract to submit additional information can be expedited.

We wish to thank you for the opportunity to prepare this Application and particularly Mr. Fred James for his cooperation and valuable assistance in preparation of this Application. This Application was prepared by Dals Chaudhary under the direction of Dr. Barry Berdahl of our staff.

Very truly yours,

HAZEN AND SAWYER, P.C.

*Jerry Lastihenos*  
Jerry Lastihenos, P.E.  
Vice President

JL:fg  
Attachment

BAYONNE 301(h) APPLICATION

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BAYONNE 301(h) APPLICATION

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- IIA-2. Projected Design Loads
- IIA-3. Process Flow Schematic
- IIA-4. Treatment System Components
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- IIA-6. Present Bayonne STP Effluent - Monthly Operating Data
- IIA-7. Present Discharge Outfall Schematic
- IIA-8. Current Discharge Characteristics
- IIA-9. Projected Effluent Volume and Mass Emissions
- IIA-10. Details of Combined Sewer Overflow Regulators
- IIB-1. Tide Heights and Time Differences Relative to the Battery
- IIB-2. High Water at New York
- IIB-3. One Hour After High Water at New York
- IIB-4. Two Hours After High Water at New York
- IIB-5. Three Hours After High Water at New York
- IIB-6. Four Hours After High Water at New York
- IIB-7. Five Hours After High Water at New York
- IIB-8. Low Water at New York
- IIB-9. One Hour After Low Water at New York
- IIB-10. Two Hours After Low Water at New York
- IIB-11. Three Hours After Low Water at New York
- IIB-12. Four Hours After Low Water at New York
- IIB-13. Five Hours After Low Water at New York
- IIB-14. Average Tide Current Speeds and Directions in Kill Van Kull
- IIB-15. Water Quality Monitoring Stations in Kill Van Kull

LIST OF EXHIBITS (Cont'd)  
(At the end of each sub-section)

- IIB-16. Water Quality - Salinity - April-August 1976
- IIB-17. Water Quality - Temperature - April-August 1976
- IIB-18. Water Quality - DO - April-August 1976
- IIB-19. Water Quality - pH - April-August 1976
- IIB-20. ISC Automatic Monitoring Station in Kill Van Kull
- IIB-21. ISC Coliform Survey Stations
- IIB-22. ISC Seasonal Disinfection Coliform Sampling Survey
- IIB-23. Sediment Analysis of Borings in Kill Van Kull
- IIC-1. Distinctive Habitats of Receiving Waters
- IIC-2. Fish Species Collected from the Kill Van Kull and Newark Bay
- IID-1. Letter from NJDEP Re: Compliance With Coastal Zone Management Act
- IID-2. Letter from NJDEP Re: No Impact to Threatened or Endangered Species
- IID-3. Letter from National Marine Fisheries Service Re: Shortnose Sturgeon in the Kill Van Kull
- III-1. Proposed Sampling and Analytical Methods
- III-2. Proposed Sampling Stations



## I. Executive Summary



## SECTION I. EXECUTIVE SUMMARY

The City of Bayonne wastewater management facilities include 78 miles of combined sewers and a 21 mgd primary treatment plant which was constructed in 1954. The current flow to the Bayonne Sewage Treatment Plant (STP) is 11.9 mgd and removals are about 40 percent of BOD<sub>5</sub> and 50 percent of suspended solids. The design flow for the Bayonne service area as projected by the Hudson County Utilities Authority 201 Facilities Plan is 11.0 mgd.

The Bayonne STP discharges treated effluent into Kill Van Kull via a 1350 ft. long 68" x 68" concrete outfall. The Kill Van Kull is a saline estuary within the New York Harbor estuary, which connects Upper New York Bay and the Newark Bay. The Kill Van Kull is a navigational channel about 4 miles (6.4 km) long and 1000 to 2000 feet (300 to 600 m) wide, and is maintained at a depth of 35 feet (10.5 m) from mean low water (MLW).

As discussed in Section IIA of this Application, the present outfall is a single outlet outfall with discharge at surface level (0.0) in the Kill Van Kull. As part of the "improved discharge", this outfall will be extended by 476.5 feet, the maximum possible without interference with navigational functions of the channel. The proposed outfall extension includes a 72" main diffuser section with fifteen 20-inch diameter laterals, each connected to two 12-inch diameter outlet ports. Details of the diffuser are given in Exhibit IIA-5. With the "improved" outfall discharge, the available dilution is estimated to be 100:1 at the design average effluent flow of 11 mgd and 40:1 at a peak wet weather effluent flow of 22 mgd.

The following paragraphs briefly describe how the Bayonne STP "improved discharge" will meet the requirements of Section 301(h):

40 CFR 125.60: Existence of and Compliance with Applicable Water Quality Standards.

The applicable water quality standards for the Study Area waters include the New Jersey DEP classification of TW-3 waters and Interstate Sanita

tion Commission (ISC) classification of B-2 waters. Both standards require a minimum dissolved oxygen level of 3 mg/l in the Kill Van Kull Channel. For details of other water quality parameters see Section IID. Dissolved oxygen (DO) concentrations are lowest during the summer period due to lower saturation values for oxygen solubility in water at high temperatures. Bacterial activity is also increased by high summer temperatures which results in decreased DO levels in the receiving waters. Frequency analysis of summer 1974-1976 DO data by the NYC 208 Study showed that about 25 percent of the DO values for the Kill Van Kull area were below the minimum standard of 3.0 mg/l. The Interstate Sanitation Commission (ISC) noted an improvement in the summer of 1982 DO concentrations in the Kill over previous years. The ISC Kill Van Kull-U.S. Gypsum monitoring station met the 3.0 mg/l DO requirements 95.7, 96.8 and 94.2 percent of the time in the months of July, August and September, 1981, respectively. DO standards were met 100 percent of the time from October 1980 through June 1981 (ISC, 1982 Summary). Based on the currently available data and with the proposed "improved" outfall with diffuser, it is estimated that all of the water quality requirements will be met by the Bayonne STP effluent discharge in the Kill Van Kull.

40 CFR 125.61: Attainment or Maintenance of Water Quality which Assures Protection of Public Water Supplies, a Balanced Indigenous Population of Shellfish, Fish and Wildlife and Recreational Activities in and on the Water.

Modifying of the NPDES permit will not interfere with the attainment or maintenance of the present water quality. The water has not been nor will be used as a public water supply. Since the "improved discharge" will in fact be an improvement over the present available dilution, none

of the recreational activities will be affected adversely. The determination on Balanced Indigenous Population (BIP) will be made based on additional data to be collected as outlined in the proposed Plan of Study (Section III).

40 CFR 125.62: Establishment of a Monitoring Program.

The proposed monitoring program is described in Section III F. The program basically contains a sampling and analysis program similar to that carried out to determine the baseline information presented in this Application. Special emphasis will be given on monitoring the most critical areas and seasons to maximize the ability to determine changes which may be associated with the modified discharge.

40 CFR 125.63: Effect of Discharge on Other Point and Non-Point Sources.

Based on the limited currently available data, it is estimated that there will be no additional treatment or control requirements for any other point or non-point sources. The initial dilution ratio of 100:1 will be greatly increased by the time the waters in the Kill Van Kull enter the New York Harbor. This will be further documented as described in the proposed Plan of Study.

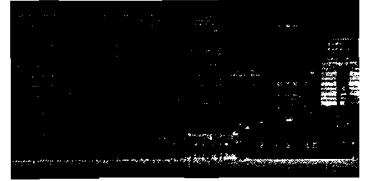
40 CFR 125.64: Toxics Control Program.

Currently available data is not sufficient to provide information on the toxic control program. Additional information will be obtained and evaluated as detailed in the proposed Plan of Study.

40 CFR 125.65: Increase in Effluent Volume or Amount of Pollutants Discharged.

The proposed "improved discharge" will not result in an increase in effluent volume or the amount of pollutants discharged to the receiving waters.





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Statement of Change of Reg. Agent/Office (PDF)

Statement of Change of Principal Office (PDF)

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<b>Organization Number</b>	0303569
<b>Name</b>	GENERAL CABLE INDUSTRIES, INC.
<b>Profit or Non-Profit</b>	P - Profit
<b>Company Type</b>	FCO - Foreign Corporation
<b>Status</b>	A - Active
<b>Standing</b>	G - Good
<b>State</b>	DE
<b>File Date</b>	7/31/1992
<b>Authority Date</b>	7/31/1992
<b>Last Annual Report</b>	6/13/2006
<b>Principal Office</b>	4 TESSENEER DR. HIGHLAND HEIGHTS, KY 41076
<b>Registered Agent</b>	C. T. CORP. SYSTEM KY. HOME LIFE BLDG., RM. 1102 LOUISVILLE, KY 40202

#### Current Officers

<b>President</b>	<u>Gregory B Kenny</u>
<b>Vice President</b>	<u>Christopher Virgulak</u>
<b>Secretary</b>	<u>Robert J Siverd</u>
<b>Treasurer</b>	<u>BRIAN J. ROBINSON</u>
<b>Director</b>	<u>Robert J Siverd</u>
<b>Director</b>	<u>Christopher F Virgulak</u>

Incorporators and Initial Directors

BB6000000

<b>Director</b>	<u>RONALD F. WALKER</u>
<b>Director</b>	<u>DAVID H. STREET</u>
<b>Director</b>	<u>J. EARL BECKMAN</u>
<b>Director</b>	<u>GEORGE F. CARR</u>
<b>Director</b>	<u>JOSEPH S. DIXON</u>

<b>Assumed Names</b>	<b>Status</b>
<u>BICCGENERAL</u>	Inactive

**Previous Names**  
BICCGENERAL CABLE INDUSTRIES, INC.

### Images Available Online

Documents filed with the Office of the Secretary of State on September 15, 2004 or thereafter are available as scanned images or PDF documents. Documents filed prior to September 15, 2004 will become available as the images are created.

6/13/2006	2 pages	<u>tiff</u>	<u>PDF</u>	<u>Annual Report</u>
6/9/2005	2 pages	<u>tiff</u>	<u>PDF</u>	<u>Annual Report</u>
6/15/2004	2 pages	<u>tiff</u>	<u>PDF</u>	<u>Annual Report</u>
8/25/2003	2 pages	<u>tiff</u>	<u>PDF</u>	<u>Annual Report</u>
8/26/2002	2 pages	<u>tiff</u>	<u>PDF</u>	<u>Annual Report</u>
8/3/2001	2 pages	<u>tiff</u>	<u>PDF</u>	<u>Annual Report</u>
10/23/2000	3 pages	<u>tiff</u>	<u>PDF</u>	<u>Articles of Amendment</u>
7/20/2000	2 pages	<u>tiff</u>	<u>PDF</u>	<u>Annual Report</u>
4/28/2000	2 pages	<u>tiff</u>	<u>PDF</u>	<u>Certificate of Assumed Name</u>

### Certificates Available

Certificate of Authorization

Certificate of Registered Agent (Domestic and Foreign)

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JOHN Y. BROWN III  
SECRETARY OF STATE



0303569.04

John Y. Brown III  
Secretary of State

Received and Filed  
04/28/2000 10:51 AM

CERTIFICATE OF ASSUMED NAME

Fee Receipt: \$20.00

This certifies that the assumed name of

BICCGeneral

Chance C226

has been adopted by BICCGeneral Cable Industries, Inc.

which is the "real name" of (YOU MUST CHECK ONE)

☐ a Domestic General Partnership

☐ a Foreign General Partnership

☐ a Domestic Registered Limited Liability Partnership

☐ a Foreign Registered Limited Liability Partnership

☐ a Domestic Limited Partnership

☐ a Foreign Limited Partnership

☐ a Domestic Business Trust

☐ a Foreign Business Trust

☐ a Domestic Corporation

☒ a Foreign Corporation

☐ a Domestic Limited Liability Company

☐ a Foreign Limited Liability Company

☐ a Joint Venture

organized and existing in the state or country of Delaware, and whose address is

4 Tesseneer Drive, Highland Heights, KY 41076

Street address, if any

City

State

Zip Code

The certificate of assumed name is executed by

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print or type name and title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

Robert J. Siverd, Exec. Vice President

\_\_\_\_\_  
Print or type name and title

11/23/99  
Date



**BLANK ROME COMISKY & McCAULEY LLP**

*Counselors at Law*

*Direct Dial:*

*Fax:*

*Email:*

(215) 569-5436

(215) 832-5436

[Banson@blankrome.com](mailto:Banson@blankrome.com)

*Delaware  
Florida  
Maryland  
New Jersey  
New York  
Pennsylvania  
Washington, DC*

April 27, 2000

**FEDERAL EXPRESS**

Commonwealth of Kentucky  
Secretary of State  
700 Capitol Avenue, Suite 152  
Frankfort, KY 40601

**Re: BICC GENERAL**

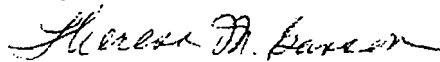
Dear Sir or Madam:

Enclosed for filing are the original and one copy of a Certificate of Assumed Name for BICCGeneral Cable Industries, Inc. Also enclosed is a check in the amount of \$20.00 for the requisite fee.

Please acknowledge receipt of the enclosures by stamping and returning the additional copy of this letter in the envelope provided.

If you have any questions concerning the above, please call me at the above direct dial telephone number. .

Very truly yours,



Theresa M. Banson  
Senior Corporate Paralegal

encls.

cc: Julie Dollenmayer  
Gregory B. Guarton, Esquire

1\WP\F\BICC\ky fil let.wpd

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COMMONWEALTH OF KENTUCKY  
JOHN Y. BROWN III, SECRETARY OF STATE  
ANNUAL REPORT

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0303569

DUE JUNE 30,

2000

(4) FILING FEE

\$15.00

(1) EXACT CORPORATE NAME AND CURRENT PRINCIPAL OFFICE ADDRESS

BICCGENERAL CABLE INDUSTRIES, INC.  
4 TESSENEER DR.  
HIGHLAND HEIGHTS, KY 41076

(5) STATE OR COUNTRY OF INCORPORATION

DE

(2) THE PRINCIPAL OFFICE ADDRESS IS HEREBY CHANGED TO

(6) DATE OF INCORPORATION OR DATE  
AUTHORIZED TO TRANSACT BUSINESS

07/31/1992

(3) CURRENT REGISTERED AGENT AND REGISTERED OFFICE ADDRESS

Changes made to the registered agent or registered office cannot be made on this form.  
Complete. To request a form to be mailed or download form from web site.

C. T. CORP. SYSTEM  
KY. HOME LIFE BLDG., RM. 1102  
LOUISVILLE, KY 40202

(7) MAIL A STATEMENT OF SPACES TO AGENT'S OFFICE TO

JUN 9 2000

(8) PRINCIPAL OFFICERS If the corporation has previously filed an annual report, verify the names & titles of officers listed below. Please note any additions to or changes in the principal officers and give the address for each person listed. If (8) is blank, type or print the names & business addresses of the current principal officers. If sole officer, please note.

CEO/President	Stephen Rabinowitz	4 Tesseneer Drive, Highland Heights, KY 41076
Vice President	Christopher Virgulak	4 Tesseneer Drive, Highland Heights, KY 41076
Secretary	Robert J Siverd	4 Tesseneer Drive, Highland Heights, KY 41076
Treasurer	Christopher Virgulak	4 Tesseneer Drive, Highland Heights, KY 41076
President	Gregory B. Kenny	4 Tesseneer Drive, Highland Heights, KY 41076

(9) DIRECTORS Type or print the names and business addresses of the corporation's directors. No listing of directors is verification that the corporation has dispensed with directors. Nonprofit corporations must list three (3) or more directors.

Name	Christopher F. Virgulak	Address	4 Tesseneer Drive, Highland Heights, KY 41076
Name	Robert J. Siverd	Address	4 Tesseneer Drive, Highland Heights, KY 41076
Name		Address	
Name		Address	

I VERIFY THAT INFORMATION IN THIS ANNUAL REPORT IS CURRENT AS OF THE DATE THIS REPORT IS EXECUTED.

*Jeffrey J. Whelan*  
Signature of Officer or Chairman of the Board  
Jeffrey J. Whelan

TITLE

V.P. - Taxes &amp; Asst. Sec.

DATED

5/31/00

**BICCGeneral CABLE INDUSTRIES, INC.**

**MANAGEMENT**

<u>NAME</u>	<u>TITLE</u>	<u>DATE</u>
Christopher F. Virgulak	Director	6/28/94
Robert J. Siverd	Director	7/1/92
Stephen Rabinowitz	Chief Executive Officer	6/15/99
Gregory B. Kenny	President and Chief Operating Officer	6/15/99
Robert J. Siverd	Executive Vice President, General Counsel and Secretary	6/28/94
Christopher F. Virgulak	Executive Vice President, Chief Financial Officer, Treasurer and Assistant Secretary	6/28/94
Jeffrey Whelan	Vice President - Taxes and Assistant Secretary	9/26/96

6/99

COMMONWEALTH OF KENTUCKY  
JOHN Y. BROWN III  
SECRETARY OF STATE



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Secretary of State  
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APPLICATION FOR AMENDED CERTIFICATE OF AUTHORITY

Pursuant to the provisions of KRS Chapter 271B, 273 or 274, the undersigned hereby applies for an amended certificate of authority on behalf of the corporation named below and for that purpose submits the following statements:

1. The corporation is ☒ a business corporation (KRS 271B).  
☐ a nonprofit corporation (KRS 273).  
☐ a professional service corporation (KRS 274).
2. BICCGeneral Cable Industries, Inc.  
(Name of corporation or fictitious name adopted for use in Kentucky)  
is a corporation organized and existing under the laws of the state or country of Delaware  
and received authority to transact business in Kentucky on December 16, 1982
3. The corporation's name in the state or country of incorporation has been changed to  
General Cable Industries, Inc.  
The name of the corporation to be used in Kentucky is  
\_\_\_\_\_  
(If "real name" is unnecessary for use)
4. The corporation's period of duration has been changed to no change
5. The corporation's state or country of incorporation has been changed to no change
6. A certificate of existence duly authenticated by the Secretary of State accompanies this application.
7. This application will be effective upon filing, unless a delayed effective date and/or time is specified.

\_\_\_\_\_  
Signature  
Robert J. Brown, Executive Vice President

Date 10 23 2000

*State of Delaware*  
*Office of the Secretary of State*

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PAGE 1

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THAT THE SAID "BICCGENERAL CABLE INDUSTRIES, INC.", FILED A CERTIFICATE OF AMENDMENT, CHANGING ITS NAME TO "GENERAL CABLE INDUSTRIES, INC.", THE FOURTH DAY OF OCTOBER, A.D. 2000, AT 1 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE AFORESAID CORPORATION IS DULY INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL CORPORATE EXISTENCE NOT HAVING BEEN CANCELLED OR DISSOLVED SO FAR AS THE RECORDS OF THIS OFFICE SHOW AND IS DULY AUTHORIZED TO TRANSACT BUSINESS.



  
Edward J. Freel, Secretary of State

0868812 8320

001510159

AUTHENTICATION: 0725409

DATE: 10-10-00

# BLANK ROME COMISKY & McCAULEY LLP

*Counselors at Law*

*Direct Dial:*

(215) 569-5436

*Fax:*

*Email:*

(215) 832-5436

*Banson@blankrome.com*

*Delaware  
Florida  
Maryland  
New Jersey  
New York  
Pennsylvania  
Washington, DC*

October 19, 2000

VIA FEDERAL EXPRESS

Secretary of State  
Room 154, Capitol Building  
700 Capitol Avenue  
Frankfurt, KY 40602-0718

Re: BICCGENERAL CABLE INDUSTRIES, INC.  
Name changed to: GENERAL CABLE INDUSTRIES, INC.

Dear Sir or Madam:

Enclosed for filing is the original and two copies of an Application for Amended Certificate of Authority along with a checks in the amount of \$40 for the filing fee.

Also enclosed is a Certificate of Good Standing confirming that the corporation's name has been changed in Delaware.

Please acknowledge receipt of the enclosures by stamping and returning the additional copy of this letter in the envelope provided herein.

If you have any questions concerning the above, please call me at the above direct dial telephone number.

Very truly yours,

  
Theresa M. Banson  
Senior Corporate Paralegal

encls.

cc: Julie Dollemayer  
Melissa Gilstrap, Esquire

\\WPFF\General Cable\Filing letters\KY\dlf let.wpd

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**JOHN Y. BROWN III, SECRETARY OF STATE**  
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DUE JUNE 30,

2001

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## (1) EXACT CORPORATE NAME AND CURRENT PRINCIPAL OFFICE ADDRESS

GENERAL CABLE INDUSTRIES, INC.  
4 TESSENEER DR.  
HIGHLAND HEIGHTS, KY 41076

(5) STATE OR COUNTRY OF INCORPORATION

DE

## (2) THE PRINCIPAL OFFICE ADDRESS IS HEREBY CHANGED TO

(6) DATE OF INCORPORATION OR DATE  
AUTHORIZED TO TRANSACT BUSINESS

07/31/1992

## (3) CURRENT REGISTERED AGENT AND REGISTERED OFFICE ADDRESS

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C.T. CORP. SYSTEM  
KY. HOME LIFE BLDG., RM. 1102  
LOUISVILLE, KY 40202

## (7) MAIL A STATEMENT OF CHANGE OF AGENT OR OFFICE TO

**RECEIVED**

JUN 26 2001

(8) **PRINCIPAL OFFICERS** If the corporation has previously filed an annual report, verify the names and addresses of the principal officers. Please note any additions to or changes in the principal officers and give the address for each person listed. If (8) is blank, type or print the names & business addresses of the current principal officers. If sole officer, please note.

President	Gregory B Kenny	4 Tesseneer Drive, Highland Heights, KY 41076
Vice President	Christopher Virgulak	4 Tesseneer Drive, Highland Heights, KY 41076
Secretary	Robert J Siverd	4 Tesseneer Drive, Highland Heights, KY 41076
Treasurer	Christopher Virgulak	4 Tesseneer Drive, Highland Heights, KY 41076
		Address
		Address
		Address

(9) **DIRECTORS** Type or print the names and business addresses of the corporation's directors. No listing of directors is verification that the corporation has dispensed with directors. Nonprofit corporations must list three (3) or more directors.

Christopher F. Virgulak	4 Tesseneer Drive, Highland Heights, KY 41076
Name	Address
Robert J. Siverd	4 Tesseneer Drive, Highland Heights, KY 41076
Name	Address
	Address
	Address

I VERIFY THAT INFORMATION IN THIS ANNUAL REPORT IS CURRENT AS OF THE DATE THIS REPORT IS EXECUTED.

Jeffrey J. Whelan

TITLE V.P.-Taxes &amp; Asst. Secr DATED 6/20/01

**General CABLE INDUSTRIES, INC.**

**MANAGEMENT**

<b><u>NAME</u></b>	<b><u>TITLE</u></b>	<b><u>DATE</u></b>
Christopher F. Virgulak	Director	6/28/94
Robert J. Siverd	Director	7/1/92
Stephen Rabinowitz	Chief Executive Officer	6/15/99
Gregory B. Kenny	President and Chief Operating Officer	6/15/99
Robert J. Siverd	Executive Vice President, General Counsel and Secretary	6/28/94
Christopher F. Virgulak	Executive Vice President, Chief Financial Officer, Treasurer and Assistant Secretary	6/28/94
Jeffrey Whelan	Vice President - Taxes and Assistant Secretary	9/26/96



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DUE JUNE 30, 2002

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(1) EXACT CORPORATE NAME AND CURRENT PRINCIPAL OFFICE ADDRESS

GENERAL CABLE INDUSTRIES, INC.  
4 TESSENEER DR.  
HIGHLAND HEIGHTS, KY 41076

RECEIVED

JUN 24 2002

(5) STATE OR COUNTRY OF INCORPORATION

DE

SECRETARY OF STATE  
COMMONWEALTH OF KY

(2) THE PRINCIPAL OFFICE ADDRESS IS HEREBY CHANGED TO

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AUTHORIZED TO TRANSACT BUSINESS

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(3) CURRENT REGISTERED AGENT AND REGISTERED OFFICE ADDRESS

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LOUISVILLE, KY 40202

(7) MAIL A STATEMENT OF CHANGE OF AGENT OR OFFICE TO

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President	Gregory B Kenny	Address
Vice President	Christopher Virgulak	Address
Secretary	Robert J Siverd	Address
Treasurer	Christopher Virgulak	Address
		Address
		Address

(9) DIRECTORS Type or print the names and business addresses of the corporation's directors. No listing of directors is verification that the corporation has dispensed with directors. Nonprofit corporations must list three (3) or more directors.

Name	Robert J Siverd	Address
Name	Christopher F Virgulak	Address
Name		Address
Name		Address
Name		Address

I VERIFY THAT INFORMATION IN THIS ANNUAL REPORT IS CURRENT AS OF THE DATE THIS REPORT IS EXECUTED.

*[Signature]*  
Secretary of State or Chairman of the Board

TITLE V.P. - Taxes

DATED 6/17/02

## **GENERAL CABLE INDUSTRIES, INC.**

### **MANAGEMENT**

<u><b>NAME</b></u>	<u><b>TITLE</b></u>	<u><b>DATE</b></u>
Christopher F. Virgulak	Director	6/28/94
Robert J. Siverd	Director	7/1/92
Gregory B. Kenny	President and Chief Executive Officer	8/8/01
Robert J. Siverd	Executive Vice President, General Counsel and Secretary	6/28/94
Christopher F. Virgulak	Executive Vice President, Chief Financial Officer, and Assistant Secretary	6/28/94
Stephen J. Smith	Vice President - Treasurer	6/15/00
Jeffrey Whelan	Vice President - Taxes and Assistant Secretary	9/26/96
David W. Hills	Assistant Secretary	8/6/01

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ANNUAL REPORT  
(See Reverse Side for Filing Instructions)

RECORD # 0303569

DUE JUNE 30, 2003

(4) FILING FEE

\$15.00

(1) EXACT CORPORATE NAME AND CURRENT PRINCIPAL OFFICE ADDRESS

GENERAL CABLE INDUSTRIES, INC.  
4 TESSENEER DR.  
HIGHLAND HEIGHTS, KY 41076

(5) STATE OR COUNTRY OF INCORPORATION

DE

JUN 17 2003

(2) THE PRINCIPAL OFFICE ADDRESS IS HEREBY CHANGED TO

(6) DATE OF INCORPORATION OR DATE  
AUTHORIZED TO TRANSACT BUSINESS

07/31/1992

(3) CURRENT REGISTERED AGENT AND REGISTERED OFFICE ADDRESS

Changes made to the registered agent or registered office cannot be made on this form.  
Complete (7) in request a form to be mailed or download form from web site

C. T. CORP. SYSTEM  
KY. HOME LIFE BLDG., RM. 1102  
LOUISVILLE, KY 40202

(7) MAIL A STATEMENT OF CHANGE OF AGENT OR OFFICE TO

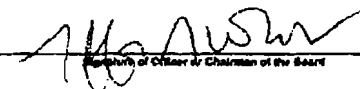
(8) PRINCIPAL OFFICERS If the corporation has previously filed an annual report, verify the names & titles of officers listed below. Please note any additions to or changes in the principal officers and give the address for each person listed. If (8) is blank, type or print the names & business addresses of the current principal officers. If sole officer, please note.

President	Gregory B Kenny	Address
Vice President	Christopher Virgulak	Address
Secretary	Robert J Sivar	Address
Treasurer	Christopher Virgulak	Address
		Address

(9) DIRECTORS Type or print the names and business addresses of the corporation's directors. No listing of directors is verification that the corporation has dispersed with directors. Nonprofit corporations must list three (3) or more directors.

Name	Robert J Sivar	Address
Name	Christopher F Virgulak	Address
Name		Address
Name		Address

I VERIFY THAT INFORMATION IN THIS ANNUAL REPORT IS CURRENT AS OF THE DATE THIS REPORT IS EXECUTED.

 TITLE V.P. - Taxes DATED 6-11-03

## **GENERAL CABLE INDUSTRIES, INC.**

### **MANAGEMENT**

<u>NAME</u>	<u>TITLE</u>	<u>DATE</u>
Christopher F. Virgulak	Director	6/28/94
Robert J. Siverd	Director	7/1/92
Gregory B. Kenny	President and Chief Executive Officer	8/8/01
Robert J. Siverd	Executive Vice President, General Counsel and Secretary	6/28/94
Christopher F. Virgulak	Executive Vice President, Chief Financial Officer, Assistant Secretary, Treasurer	6/28/94 11/1/02
Jeffrey Whelan	Vice President - Taxes and Assistant Secretary	9/26/96
David W. Hills	Assistant Secretary	8/6/01



0303569

COMMONWEALTH OF KENTUCKY  
TREY GRAYSON, SECRETARY OF STATE  
ANNUAL REPORT  
(See Reverse Side for Filing Instructions)

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online using a credit card. Visit  
our web site at [www.kysos.com](http://www.kysos.com)

RECORD # 0303569

DUE JUNE 30, 2004

(4) FILING FEE

\$15.00

(1) EXACT CORPORATE NAME AND CURRENT PRINCIPAL OFFICE ADDRESS

GENERAL CABLE INDUSTRIES, INC.  
4 TESSENEER DR.  
HIGHLAND HEIGHTS, KY 41076

(5) STATE OR COUNTRY OF INCORPORATION

DE

RECEIVED

JUN 14 2004

(2) THE PRINCIPAL OFFICE ADDRESS IS HEREBY CHANGED TO

SECRETARY OF STATE  
COMMONWEALTH OF KY

(6) DATE OF INCORPORATION OR DATE  
AUTHORIZED TO TRANSACT BUSINESS

07/31/1992

(3) CURRENT REGISTERED AGENT AND REGISTERED OFFICE ADDRESS  
Changes made to the registered agent or registered office cannot be made on this form.  
Complete (7) to request a form to be mailed or download form from web site.

C. T. CORP. SYSTEM  
KY. HOME LIFE BLDG., RM. 1102  
LOUISVILLE, KY 40202

(7) MAIL A STATEMENT OF CHANGE OF AGENT OR OFFICE TO

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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Vice President	Christopher Virgulak	Address
Secretary	Robert J Siverd	Address
Treasurer	Christopher Virgulak	Address
		Address
		Address

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Name	Robert J Siverd	Address
Name	Christopher F Virgulak	Address
Name		Address
Name		Address

I VERIFY THAT THE INFORMATION IN THIS ANNUAL REPORT IS CURRENT AS OF THE DATE THIS REPORT IS EXECUTED.

Signature of Officer or Chairman of the Board  
Jeffrey J. Whelan

TITLE V.P. Taxes

DATED 5-28-04

## **GENERAL CABLE INDUSTRIES, INC.**

### **MANAGEMENT**

<u>NAME</u>	<u>TITLE</u>	<u>DATE</u>
Christopher F. Virgulak	Director	6/28/94
Robert J. Siverd	Director	7/1/92
Gregory B. Kenny	President and Chief Executive Officer	8/8/01
Robert J. Siverd	Executive Vice President, General Counsel and Secretary	6/28/94
Christopher F. Virgulak	Executive Vice President, Chief Financial Officer, Assistant Secretary, Treasurer	6/28/94 11/1/02
Jeffrey Whelan	Vice President - Taxes and Assistant Secretary	6/28/94
David W. Hills	Assistant Secretary	8/6/01

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using a credit card or prepaid account.  
Visit our web site at [www.kysos.com](http://www.kysos.com)

COMMONWEALTH OF KENTUCKY  
TREY GRAYSON, SECRETARY OF STATE  
ANNUAL REPORT  
DUE JUNE 30, 2005



0303569

ORGANIZATION ID # 0303569      STATE OR COUNTRY OF INCORPORATION DE      ORGANIZATION DATE 07/31/1992      FILING FEE \$15.00

## (1) EXACT CORPORATE NAME AND CURRENT PRINCIPAL OFFICE ADDRESS

GENERAL CABLE INDUSTRIES, INC.  
4 TESSENEER DR.  
HIGHLAND HEIGHTS, KY 41076

## (3) THE PRINCIPAL OFFICE ADDRESS IS HEREBY CHANGED TO

RECEIVED

JUN 07 2005

## (2) CURRENT REGISTERED AGENT AND REGISTERED OFFICE ADDRESS

Changes made to the registered agent or registered office cannot be made online. Complete (4) to request a form to be mailed or download form from [www.kysos.com](http://www.kysos.com).

C. T. CORP. SYSTEM  
KY. HOME LIFE BLDG., RM. 1102  
LOUISVILLE, KY 40202

## (4) MAIL A STATEMENT OF CHANGE OF AGENT OR OFFICE TO

## (5) PRINCIPAL OFFICERS If the corporation has previously filed an annual report, verify the names and titles of officers listed below. Please note any additions to or changes in the principal officers and give the business address for each person listed. If (5) is blank, type or print the names and business addresses of the current principal officers. If sole officer, please note. The annual report will be returned if business addresses are not listed.

President	Gregory B Kenny	Address
Vice President	Christopher Virgulak	Address
Secretary	Robert J Siverd	Address
Treasurer	Christopher Virgulak	Address
		Address
		Address

## (6) DIRECTORS Type or print the names and business addresses of the corporation's directors. No listing of directors is verification that the corporation has dispensed with directors (KRS 271B.8-010(3)). Nonprofit corporations must list three (3) or more directors (KRS 273.211). The annual report will be returned if business addresses are not listed.

Name	Robert J Siverd	Address
Name	Christopher F Virgulak	Address
Name		Address
Name		Address
Name		Address

(7) Check here if you are a cooperative corporation ☐

I VERIFY THAT THE INFORMATION IN THIS ANNUAL REPORT IS CURRENT AS OF THE DATE THIS REPORT IS EXECUTED.

Signature of Officer or Chairman of the Board

TITLE V.P. - Taxes

DATED 5-31-05

## ANNUAL REPORT AND FILING FEE

Submit for filing the completed annual report form and correct filing fee as indicated above. Make check payable to the "Kentucky State Treasurer". Please do not send cash.

## MAILING ADDRESS

Trey Grayson  
Secretary of State  
P O Box 1150  
Frankfort, KY 40602-1150

## OFFICE LOCATIONS

Secretary of State  
State Capitol, Room 154  
700 Capital Avenue  
Frankfort, KY 40601  
(502)-564-2848

Secretary of State  
363 Versailles Road  
Frankfort, KY 40601  
(502)-573-0265

NOTE: P O Box 1150 is for  
annual report filings only.

## **GENERAL CABLE INDUSTRIES, INC.**

### **MANAGEMENT**

<b><u>NAME</u></b>	<b><u>TITLE</u></b>	<b><u>DATE</u></b>
Christopher F. Virgulak	Director	6/28/94
Robert J. Siverd	Director	7/1/92
Gregory B. Kenny	President and Chief Executive Officer	8/8/01
Robert J. Siverd	Executive Vice President, General Counsel and Secretary	6/28/94
Christopher F. Virgulak	Executive Vice President, Chief Financial Officer and Treasurer	6/28/94 11/1/02
Jeffrey Whelan	Vice President - Taxes and Assistant Secretary	9/26/96
David W. Hills	Assistant Secretary	8/6/01



You can file your annual report online using a credit card or prepaid account. Visit our web site at [sos.ky.gov/annualreports](http://sos.ky.gov/annualreports)

COMMONWEALTH OF KENTUCKY  
TREY GRAYSON, SECRETARY OF STATE  
ANNUAL REPORT  
DUE JUNE 30, 2006



0303569

ORGANIZATION ID #  
0303569

STATE OR COUNTRY  
OF INCORPORATION

DE

ORGANIZATION  
DATE

07/31/1992

FILING  
FEE

\$15.00

## (1) EXACT CORPORATE NAME AND CURRENT PRINCIPAL OFFICE ADDRESS

GENERAL CABLE INDUSTRIES, INC.  
4 TESSENEER DR.  
HIGHLAND HEIGHTS, KY 41076

## (3) THE PRINCIPAL OFFICE ADDRESS IS HEREBY CHANGED TO

## (2) CURRENT REGISTERED AGENT AND REGISTERED OFFICE ADDRESS

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C. T. CORP. SYSTEM  
KY. HOME LIFE BLDG., RM. 1102  
LOUISVILLE, KY 40202

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President	Gregory B Kenny	Address	
Vice President	Christopher Virgulak	Address	
Secretary	Robert J Siverd	Address	
Treasurer	Christopher Virgulak	Address	
"	Brian J. Robinson	Address	4 Tesseneer Dr., Highland Heights, KY 41076

## (6) DIRECTORS Type or print the names and business addresses of the corporation's directors. No listing of directors is verification that the corporation has dispensed with directors (KRS 271B.8-010(3)). Nonprofit corporations must list three (3) or more directors (KRS 273.211). The annual report will be returned if business addresses are not listed.

Name	Robert J Siverd	Address	
Name	Christopher F Virgulak	Address	
Name		Address	
Name		Address	

(7) Check here if you are a cooperative corporation or association organized under KRS 272. ☐

Check here if you are a rural electric or rural telephone cooperative corporation organized under KRS 279. ☐

I VERIFY THAT THE INFORMATION IN THIS ANNUAL REPORT IS CURRENT AS OF THE DATE THIS REPORT IS EXECUTED.

Signature of Officer or Chairman of the Board: Jeffrey J. Whelan Type or Print Name: Jeffrey J. Whelan Title: VP of Taxes Date: 6/8/06  
Jeffrey J. Whelan, VP of Taxes

## ANNUAL REPORT AND FILING FEE

Submit for filing the completed annual report form and correct filing fee as indicated above. Make check payable to the "Kentucky State Treasurer". Please do not send cash.

MAILING ADDRESS  
Trey Grayson  
Secretary of State  
P O Box 1150  
Frankfort, KY 40602-1150

OFFICE LOCATION  
Secretary of State  
State Capitol, Room 154  
700 Capital Avenue  
Frankfort, KY 40601  
(502)-564-2848

NOTE: P O Box 1150 is for  
annual report filings only.

## **GENERAL CABLE INDUSTRIES, INC.**

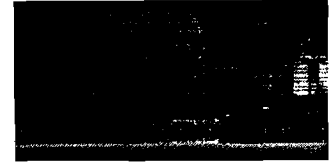
### **DIRECTORS & OFFICERS**

<u><b>NAME</b></u>	<u><b>TITLE</b></u>	<u><b>ADDRESS</b></u>
Christopher F. Virgulak	Director	4 Tesseneer Drive Highland Heights, KY 41076
Robert J. Siverd	Director	4 Tesseneer Drive Highland Heights, KY 41076
Gregory B. Kenny	President and Chief Operating Officer	4 Tesseneer Drive Highland Heights, KY 41076
Robert J. Siverd	Executive Vice President, General Counsel and Secretary	4 Tesseneer Drive Highland Heights, KY 41076
Christopher F. Virgulak	Executive Vice President and Chief Financial Officer	4 Tesseneer Drive Highland Heights, KY 41076
Brian J. Robinson	Senior Vice President, Controller and Treasurer	4 Tesseneer Drive Highland Heights, KY 41076
Jeffrey J. Whelan	Vice President of Taxes and Assistant Secretary	4 Tesseneer Drive Highland Heights, KY 41076
David W. Hills	Vice President and Assistant Secretary	4 Tesseneer Drive Highland Heights, KY 41076



## BUSINESS SERVICES

KENTUCKY SECRETARY OF STATE  
Trey Grayson



Online Business Database Home | Administrative Services | Business Services | Elections | Executive |  
Kentucky Land Office | Secretary's Desk

Kentucky Secretary of State Home > Online Business Data Base

Enter Name pattern or Organization number:

BICCGeneral

Search

Entries in orange/pink are inactive.

Number of results returned: 3

Company Name	Organization Number	Status	Type
<u>BICCGENERAL</u>	0303569	I- Inactive	ASC-Assumed Name Corporation
<u>BICCGENERAL CABLE INDUSTRIES, INC.</u>	0303569	I- Inactive	FCO-Foreign Corporation
<u>BICC GENERAL CABLE (USA), LLC</u>	0474695	I- Inactive	FLC-Foreign Limited Liability Company



Business Services Home

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Name Availability Search

Current Officer Search

Founding Officer Search

Registered Agent Search

Other Business Filings

File Annual Report

Assumed Name Renewal

Validate Certificate

Prepaid Account Status

Online UCC Services

Contact Us

Liability Statement | Privacy / Security



0 2 0 1 APPLICATION FOR 8

CERTIFICATE OF AUTHORITY

OF

Pirelli Cable Corporation

(For Use by Foreign Corporations Only)

FILED AND  
MARIO 1979  
DONALD LAN  
SECRETARY OF STATE

To: The Secretary of State "FEDERAL EMPLOYER IDENTIFICATION NO."  
State of New Jersey 13-2843525

Pursuant to the provisions of Section 14A:13-4, Corporations, General, of the New Jersey Statutes, the undersigned corporation hereby applies for authority to transact business in New Jersey, and for that purpose submits the following:

1. The name of the corporation is Pirelli Cable Corporation

2. It is incorporated under the laws of the State of Delaware

3. The date of its incorporation is July 2, 1975

4. The period of its duration is unlimited

5. The address\* of the main business or headquarters office of the corporation  
is c/o US Corporation Company, 306 South State Street, Dover, Delaware 19901  
(\*State of incorporation, including zip code)

6. The address of the registered office of the corporation in New Jersey is  
15 Exchange Place, Jersey City 07302  
(Include zip code)

and the name of its registered agent at such address is United States  
Corporation Company

Said registered agent is an agent of the corporation upon whom process against the corporation may be served.

7. The business which the corporation is to transact in New Jersey is as  
follows: Manufacture to sell and deal with wire and cable products and conduct related  
and other business as permitted by certificate of incorporation.

8. The total number of shares of capital stock of the corporation is 200 authorized;  
10 shares issued.

9. The business that the corporation proposes to transact in New Jersey is a  
business that it is authorized to transact in its jurisdiction of incorporation.

10. Attached to this Application is a certificate attesting to the fact that the  
corporation is in good standing under the laws of the jurisdiction of its incorporation,  
executed by the proper official thereof and dated not earlier than 30 days prior to the  
date of the filing of this application.

It is not necessary to have filed a REGISTRATION OF A FOREIGN CORPORATION before applying for the CERTIFICATE OF AUTHORITY, but if you have done so please complete the following:

11. The name of the undersigned corporation is presently registered with the  
Secretary of State of New Jersey. That registration was initially filed on \_\_\_\_\_  
(Date)

in accordance with the provisions of Section 14A:2-4, Corporations, General, of the New  
Jersey Statutes. The registration was renewed on \_\_\_\_\_  
(Date or dates)

in accordance with the provisions of Section 14A:2-5, Corporations, General, of the New  
Jersey Statutes.

BAH000001

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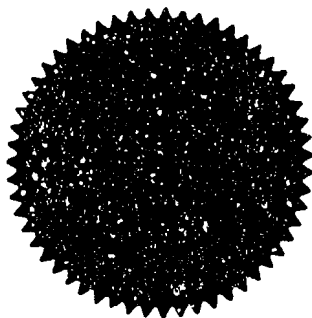
*State of New Jersey*



**Department of State**

*I, the Secretary of State of the State of New Jersey,*  
do hereby Certify that PIRELLI CABLE CORPORATION

*\_\_\_\_\_ a Corporation*  
*organized under the laws of the State of* DELAWARE  
*has complied with all the requirements of Chapter 14:13, Foreign*  
*Corporations, of the New Jersey Statutes, and that the business of said*  
*corporation to be carried on within the State of New Jersey is such as may*  
*be lawfully carried on by corporations incorporated under the laws of this*  
*State for similar business.*



*In Testimony Whereof, I have hereunto*  
*set my hand and affixed my Official*  
*Seal at Trenton, this* 10th  
*day of* March A.D. 1978

  
DONALD LAN

*Secretary of State*

0 2 0 1 1 7 1 9

In Witness Whereof, the undersigned corporation has caused

ed this Application to be executed on its behalf by

its Vice President \* this 28th

day of February, 19 78

Pirelli Cable Corporation  
(Corporate name)

By   
(Signature)

Giulio Viola, Vice President  
(Print or Type Name and Title)

(May be executed by the chairman of the board, or the president or a vice-president of the corporation.)

**FOR USE BY FOREIGN CORPORATIONS ONLY**

Fees for filing in Office of the Secretary of State, State House, Trenton, N. J. 08625.

Filing Fee \$165.00

- NOTE: 1. No recording fees will be assessed.  
2. All checks drawn Out-of-State Banks must be certified.

TRANSACTION NO.: \_\_\_\_\_

FOLDER NO.: \_\_\_\_\_

FILED BY:  
NAME:  
ADDRESS:  
CITY:  
ZIP:

APPLICATION FOR  
CERTIFICATE OF AUTHORITY OF  
Pirelli Cable Corporation  
(Foreign Corporations Only)

RECORDED AND FILED:

Recorder's Initials



# State of DELAWARE

Office of SECRETARY OF STATE

*I, Glenn C. Kenton, Secretary of State of the State of Delaware,*

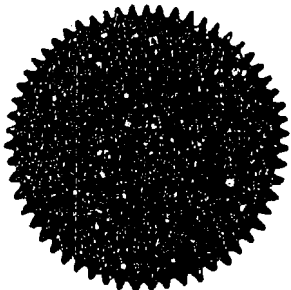
*do hereby certify* that the Certificate of Incorporation of the "PIRELLI WIRE AND CABLE CORPORATION", was received and filed in this office the second day of July, A.D. 1975, at 9 o'clock A.M.

And I do hereby further certify that the said "PIRELLI WIRE AND CABLE CORPORATION", filed a Certificate of Amendment, changing its corporate title to "PIRELLI CABLE CORPORATION" on the thirty-first day of January, A.D. 1978, at 9 o'clock A.M.

And I do hereby further certify that the aforesaid Corporation is duly incorporated under the laws of the State of Delaware and is in good standing and has a legal corporate existence so far as the records of this office show and is duly authorized to transact business.

And I do hereby further certify that the said "PIRELLI CABLE CORPORATION", is the last known title of record of the aforesaid Corporation.

In Testimony Whereof, *I have hereunto set my hand,*  
and official seal at Dover this sixth day  
of March in the year of our Lord  
one thousand nine hundred and seventy-eight.



*Glenn C. Kenton*

Glenn C. Kenton, Secretary of State



0201 1724

SECRETARY OF STATE DOYER, DELAWARE	
---------------------------------------	--

FILED AND RECORDED  
MAY 10 1978  
DONALD LAM  
SECRETARY OF STATE

0100058196

State of New Jersey



Department of State

I, the Secretary of State of the State  
of New Jersey, do hereby Certify that

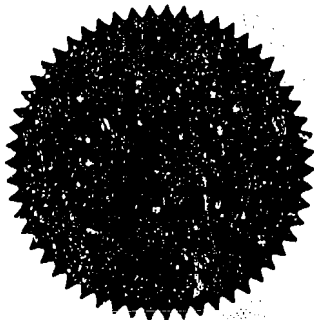
PIRELLI CABLE CORPORATION

(a Delaware Corporation)

did on the 10th day of November A. D. 1981  
file and record in this department a Certificate of Merger of  
PIRELLI CIMCO CORPORATION (a Delaware Corporation) into PIRELLI  
CABLE CORPORATION (a Delaware Corporation) the name of the surviving  
corporation is PIRELLI CABLE CORPORATION

as by the statutes of this State required.

In Testimony Whereof, I have hereto  
set my hand and affixed my Official  
Seal at Trenton, this 10th  
day of November A. D. 19 81



SECRETARY OF STATE  
DONALD LAN

11980

BOOK 1 72 PAGE 11

CERTIFICATE OF MERGER  
OF  
PIRELLI CIMCO CORPORATION  
INTO  
PIRELLI CABLE CORPORATION

---

Pursuant to Section 251(c) of the General  
Corporation Law of the State of Delaware  
and N.J.S.A. 14A: 10-7

---

PIRELLI CABLE CORPORATION, a corporation formed  
under the laws of the State of Delaware, desiring to merge  
with PIRELLI CIMCO CORPORATION pursuant to the provisions  
of Section 251(c) of the General Corporation Law of the  
State of Delaware, DOES HEREBY CERTIFY as follows:

FIRST: That the name and state of incorporation  
of each constituent corporation is:

<u>NAME</u>	<u>STATE OF INCORPORATION</u>
PIRELLI CABLE CORPORATION	Delaware
PIRELLI CIMCO CORPORATION	Delaware

SECOND: That an Agreement of Merger has been  
approved, adopted, certified, executed and acknowledged

BOOK 1 72 PAGE 12

by each of the constituent corporations in accordance with sub-section 251(c) of the General Corporation Law.

THIRD: That in accordance with the aforementioned Agreement of Merger, the merger of PIRELLI CIMCO CORPORATION into PIRELLI CABLE CORPORATION shall be effective as of June 30, 1981.

FOURTH: That the name of the surviving corporation is PIRELLI CABLE CORPORATION.

FIFTH: That the Certificate of Incorporation of PIRELLI CABLE CORPORATION shall be the certificate of incorporation of the surviving corporation.

SIXTH: That an executed copy of the Agreement of Merger is on file at the principal place of business of the surviving corporation, PIRELLI CABLE CORPORATION, 800 Rahway Avenue, Union, New Jersey 07083, and that a copy of the Agreement of Merger will be furnished by the surviving corporation, on request and without cost, to any stockholder of any constituent corporation.

IN WITNESS WHEREOF, said PIRELLI CABLE CORPORATION caused this Certificate to be executed by its officer thereunto duly authorized this 24th day of June, 1981.

PIRELLI CABLE CORPORATION

By

Robert M. Hargis  
Vice President

ATTEST:

Robert M. Hargis  
Secretary

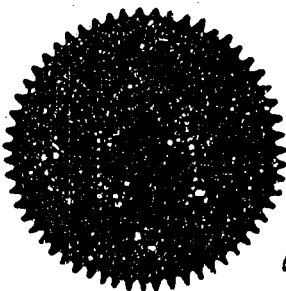


# State of DELAWARE

Office of SECRETARY OF STATE

*I, Glenn C. Kenton, Secretary of State of the State of Delaware,*  
*do hereby certify that the above and foregoing is a true and correct copy of*  
Certificate of merger of the "PIRELLI CIMCO CORPORATION", merging with and into the  
"PIRELLI CABLE CORPORATION", under the name of "PIRELLI CABLE CORPORATION", as received  
and filed in this office the twenty-ninth day of June, A.D. 1981, at 3 o'clock P.M.

In Testimony Whereof, *I have hereunto set my hand*  
*and official seal at Dover this* twenty-ninth *day*  
*of* June *in the year of our Lord*  
*one thousand nine hundred and* eighty-one.



RECEIVED FOR RECORD

*June 29* A.D. 1981

*Robert J. Lonsberry*  
RECORDER

*Glenn C. Kenton*

Glenn C. Kenton, Secretary of State

*John Dunning*  
Assistant Secretary of State

FILED

NOV 10 1981

DONALD LAN  
SECRETARY OF STATE

0100058196

United States Corporation Company

306 South State Street, Dover, Delaware

Albany, N. Y.  
Canton, City, New  
Chicago, Ill.  
Jersey City, N. J.

Los Angeles, Cal.  
Philadelphia, Pa.  
St. Louis, Mo.  
Washington, D. C.

Executive Offices

70 Pine Street, New York, New York 10270

FILED

JUN 29 1981

3 P.M.

*Mar C. Kohn*  
RECORDED & INDEXED

INDEXED

STATE OF DELAWARE }  
KENT COUNTY

RECORDED in the Office for the Recording of Deeds, Etc.  
at Dover, In and for the said County of Kent, In Corp  
Record I Vol. 72 Page 11 Bc  
the 29th day of June A. D. 1981  
WITNESS my Hand and the Seal of said office.

*Robert J. Donaway* Recorder

**FILED**

PIRELLI CABLE CORPORATION

James A. DiEleuterio, Jr.  
State Treasurer

On behalf of Pirelli Cable Corporation, a corporation which was incorporated under the laws of the State of Delaware, the undersigned, an officer of Pirelli Cables and Systems, LLC, as successor by merger to Pirelli Cable Corporation, hereby states pursuant to Section 14A:13-9, New Jersey Business Corporation Act, that the post office address within or without the State of New Jersey to which the Secretary of State may mail a copy of any process against the corporation that may be served on him is as follows:

IN WITNESS WHEREOF, this Statement of Post Office Address of the corporation is executed on behalf of the aforesaid corporation by the undersigned officer on June 25, 1999.

**By:**

Name: Louis Kopsa  
Title: Vice President

\\ODMA\PCDOCS\COLUMBLA\558819\1

0100058196

State of Delaware  
Office of the Secretary of State

Page 1

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE CERTIFICATE OF MERGER, WHICH MERGES:

"PIRELLI GABLE CORPORATION" A DELAWARE CORPORATION,  
WITH AND INTO "PIRELLI CABLES AND SYSTEMS LLC" UNDER THE  
NAME OF "PIRELLI CABLES AND SYSTEMS LLC", A LIMITED LIABILITY  
COMPANY ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF  
DELAWARE, WAS RECEIVED AND FILED IN THIS OFFICE THE THIRTY-FIRST  
DAY OF DECEMBER, A.D. 1997, AT 8:00 O'CLOCK A.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE AFORESAID LIMITED  
LIABILITY COMPANY IS GOVERNED BY THE LAWS OF THE STATE OF  
DELAWARE.

AND I DO HEREBY FURTHER CERTIFY THAT UPON FILING OF THE  
AFORESAID CERTIFICATE OF MERGER, THE CORPORATE EXISTENCE OF  
"PIRELLI GABLE CORPORATION" WAS TERMINATED.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF  
THE AFORESAID CERTIFICATE OF MERGER IS THE THIRTY-FIRST DAY OF  
DECEMBER, A.D. 1997.



*Edward J. Freel*

Edward J. Freel, Secretary of State

001-0000 0000

001-0000

AUTHENTICATION:

6844574

DATE:

27-02-99



Name and Registered Agent

**FILED**

92 17 APR

Daniel J. O'Malley Business Address  
SECRETARY OF STATE

D NO. 0100-0581-98		STATE: DE	FILING MO./YR. 03/1992	YEARS DUE 52
TYPE 1	TOTAL FEE DUE \$20.00	(1) FED ID # 13-2843525 (2) SIC #		
NAME PIRELLI CABLE CORPORATION		CITY	STATE	ZIP
MAIN BUSINESS ADDRESS 325 COLUMBIA TPK		FLORHAM PARK	NJ	07932
OFFICER/TITLE	ADDRESS	CITY	STATE	ZIP
OFFICER: XX				
OFFICER: PLEASE ENTER OFFICER/TITLE AND ADDRESS INFORMATION IN BOX 5.				
OFFICER: XX				
AGT. NM. WILBUR R. SCHMITT, JR.	325 COLUMBIA TURNPIKE	FLORHAM PARK	NJ	07932
MUST BE COMPLETED/TYPED	ADDRESS	CITY	STATE	ZIP
MAIN BUSINESS ADDRESS: 325 Columbia Turnpike,		Florham Park	NJ	07932
OFFICER/TITLE/ADDRESS: See Attachment List				
OFFICER/TITLE/ADDRESS:				
OFFICER/TITLE/ADDRESS:				
DO YOU HAVE A PRINCIPAL BUSINESS OFFICE IN N.J.? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO ADDRESS 325 Columbia Turnpike, Florham Park, NJ 07932				

WJOCR AR-91

(7) Alva Executive Vice President DATE 2/3/92  
CHAIRMAN OF BOARD, PRES., V.P., REG AGT. OR GEN PARTNER

ID NO. 0100-3257-39 STATE NJ FILING MO/YR 02/1992 YEARS DUE 92  
TYPE 0 TOTAL FEE DUE \$20.00 (1) FED ID # ~~0100-3257-39~~ SIC #  
NAME WESTPORT FASHIONS INC. CITY STATE

Name and Registered Agent

**FILED**

5-6-94

LORNA R. HOOKS  
SECRETARY OF STATE

Name and Main Business Address

0100058196

STATE DE

FILING MONTH/YEAR 03/94

YEARS INC 94

\$20.00

(1) FED ID / 13-2843525

(2) SIC / 3490

PIRELLI CABLE CORPORATION

CITY

STATE

ZIP

OFFICER/TITLE

ADDRESS

CITY

STATE

ZIP

XX  
PLEASE ENTER OFFICER/TITLE AND ADDRESS INFORMATION IN BOX 5  
XX

791290

UNITED STATES CORPORATION

150 WEST STATE ST.

TRENTON,

NJ

08608

WAS IT COMPLETELY RECENT?

ADDRESS

CITY

STATE

ZIP

MAIN BUSINESS ADDRESS

705 INDUSTRIAL DRIVE

LEXINGTON

S.C.

29072

OFFICER/TITLE/ADDRESS: GABRIELE MASCHIO, PRESIDENT, VIALE SARCA 202, MILAN ITALY 20123

OFFICER/TITLE/ADDRESS: ANTHONY ATKINSON, VICE PRESIDENT, 705 INDUSTRIAL DR., LEXINGTON, S.C. 29072

OFFICER/TITLE/ADDRESS: ALEXANDER ROSENZWEIG, SECRETARY, 705 INDUSTRIAL DR., LEXINGTON, S.C. 29072

DO YOU HAVE A PRINCIPAL  
BUSINESS OFFICE IN N.J.?☐ NO☒ YES

ADDRESS

(7)

VICE PRESIDENT

CHAIRMAN OF BOARD, PRES., V.P., REG. AGT. OR GEN. PARTNER

DATE 4-18-94



**FILED**



LOUISIANA  
SECRETARY OF STATE

Name and Registered Agent

UNITED STATES CORP. COMPANY  
230 DEAR LIVERN ROAD  
WEST TRINITY NJ 08020

Name and Main Business Address

PIRELLI CABLE CORPORATION  
706 INDUSTRIAL DRIVE  
LEXINGTON SC 29072



(1) FED ID # 13-2143525 (2) SIC # 3490

CITY STATE ZIP  
DC 20573

CITY \_\_\_\_\_ DATE \_\_\_\_\_

95073703

XX

MUST BE COMPLETED/TYPED ADDRESS CITY STATE ZIP

4 MAIN BUSINESS ADDRESS: 705 INDUSTRIAL DRIVE LEXINGTON, SC 29072

OFFICER/TITLE/ADDRESS:

OFFICER/TITLE/ADDRESS

(7)

4/6/95

CHAIRMAN OF BOARD PRES. N.P. REG. AGT. OR GEN. PARTNER

## PIRELLI CABLE CORPORATION CORPORATE OFFICERS

NAME	TITLE
Atkinson, Anthony	Vice President and Chief Financial Officer
Dalton, Robert E.	Vice President, Sales and Marketing - Energy Division
Ford, Stephen S.	Vice President, Operations - Energy Division
Hennessy, Patricia M.	Vice President, Treasury and Pensions and Treasurer
Izett, Martin N.	Vice President Corporate Purchasing
Jalovec, John S.	Vice President Information Systems
Kaufman, Robert M.	Chairman
McKiniry, John W.	Vice President Risk Management
Monteith, Jerome F.	Vice President Human Resources
Rahman, Mujib Mir	Vice President and Chief Engineer
Razelli, Eugenio	President and Chief Executive Officer
Robinson, Raymond L.	Vice President, General Manager - Communications Division
Rosenzweig, Alexander	Vice President, General Counsel & Secretary
Schmitt, Wilbur R., Jr.	Assistant Secretary

Effective December 31, 1994



# PIRELLI CABLE CORPORATION CORPORATE OFFICERS

NAME	BUSINESS ADDRESS	RESIDENCE ADDRESS
Robert M. Kaufman	1585 Broadway New York, NY 10036	345 East 52nd Street New York, NY 10022
Eugenio Razelli	705 Industrial Drive Lexington, SC 29072	111 Lane Horse Road Columbia, SC 29223
Anthony Atkinson	705 Industrial Drive Lexington, SC 29072	2 Holly Hock Court Immo, SC 29063
Robert E. Dalton	705 Industrial Drive Lexington, SC 29072	1-237 Pace Brook Columbia, SC 29212
Raymond L. Robinson	705 Industrial Drive Lexington, SC 29072	509 E. Springs Road Columbia, SC 29223
Alexander Rosenzweig	705 Industrial Drive Lexington, SC 29072	3390 Wayne Avenue Bronx, NY 10467
Martin N. Izett	705 Industrial Drive Lexington, SC 29072	120 Northridge Road Columbia, SC 29223
Wilbur R. Schmitt, Jr.	705 Industrial Drive Lexington, SC 29072	6 Lehigh Court Columbia, SC 29223
Jerome F. Monteith	705 Industrial Drive Lexington, SC 29072	1181 Point View Road Chapin, SC 29036
Mujib Mir Rahman	705 Industrial Drive Lexington, SC 29072	115 North Ridge Road Columbia, SC 29223
Stephen S. Ford	705 Industrial Drive Lexington, SC 29072	2205 Riding Ridge Road Columbia, SC 29223
Patricia M. Hennessy	705 Industrial Drive Lexington, SC 29072	39 Martie Shamheeth Lane Madison, CT 06443
John W. McKiniry	705 Industrial Drive Lexington, SC 29072	11 Beaver Pond Road Madison, CT 06443
John S. Jalovec	705 Industrial Drive Lexington, SC 29072	705 Industrial Drive Lexington, SC 29072



Name and Registered Agent

UNITED STATES CORP. COMPANY  
830 BEAR TAVERN ROAD  
WEST TRENTON NJ 08628

FILED

3-28-76

LORNA B. HOOKS  
SECRETARY OF STATE

Name and Main Business Address

PIRELLI CABLE CORPORATION  
706 INDUSTRIAL DRIVE  
LEXINGTON SC 29072





**PIRELLI CABLE CORPORATION  
CORPORATE OFFICERS  
EFFECTIVE DECEMBER 31, 1995**

TITLE	NAME	BUSINESS ADDRESS & PHONE NUMBER	RESIDENCE ADDRESS
CHAIRMAN	ROBERT M. KAUFMAN	1595 BROADWAY NEW YORK, NY 10036 (212) 909-7000	345 EAST 52ND STREET NEW YORK, NY 10022
PRESIDENT AND CHIEF EXECUTIVE OFFICER	EUGENIO RAZELLI	705 INDUSTRIAL DRIVE LEXINGTON, SC 29072 (803) 951-1000	111 LAME HORSE ROAD COLUMBIA, SC 29222
VICE PRESIDENT AND CHIEF FINANCIAL OFFICER	ANTHONY ATKINSON	705 INDUSTRIAL DRIVE LEXINGTON, SC 29072 (803) 951-1010	2 HOLLY HOOK COURT FPMO, SC 29063
VICE PRESIDENT, SALES AND MARKETING ENERGY DIVISION	ROBERT E. DALTON	705 INDUSTRIAL DRIVE LEXINGTON, SC 29072 (803) 951-1111	1-237 PACE BROOK COLUMBIA, SC 29212
VICE PRESIDENT, OPERATIONS ENERGY DIVISION	STEPHEN B. FORD	705 INDUSTRIAL DRIVE LEXINGTON, SC 29072 (803) 951-1080	2205 PICKING RIDGE ROAD COLUMBIA, SC 29223
VICE PRESIDENT CORPORATE PURCHASING	MARTIN N. ZETT	705 INDUSTRIAL DRIVE LEXINGTON, SC 29072 (803) 951-1050	120 NORTHRIDGE ROAD COLUMBIA, SC 29223
VICE PRESIDENT RISK MANAGEMENT	JOHN W. MCKINRY	300 SARGENT DRIVE NEW HAVEN, CT 06536 (203) 784-2283	11 BEAVER POND ROAD MADISON, CT 06143
VICE PRESIDENT HUMAN RESOURCES	JEROME F. MONTEITH	705 INDUSTRIAL DRIVE LEXINGTON, SC 29072 (803) 951-1067	1161 POINT VIEW ROAD CLAPIN, SC 29036
VICE PRESIDENT AND CHIEF ENGINEER	MUJIB MIR RAHMAN	705 INDUSTRIAL DRIVE LEXINGTON, SC 29072 (803) 951-4010	115 NORTH RIDGE ROAD COLUMBIA, SC 29223
VICE PRESIDENT, GENERAL MANAGER - COMMUNICATIONS DIVISION	RAYMOND L. ROBINSON	705 INDUSTRIAL DRIVE LEXINGTON, SC 29072 (803) 951-4658	509 E. SPRINGS ROAD COLUMBIA, SC 29223
VICE PRESIDENT, GENERAL COUNSEL AND SECRETARY	ALEXANDER ROSENZWEIG	705 INDUSTRIAL DRIVE LEXINGTON, SC 29072 (803) 951-1040	3600 WAYNE AVENUE BRONX, NY 10467
ASSISTANT SECRETARY	WILBUR R. SCHMITT, JR.	705 INDUSTRIAL DRIVE LEXINGTON, SC 29072 (803) 951-1018	5 LEHIGH COURT COLUMBIA, SC 29223

**PIRELLI CABLE CORPORATION  
CORPORATE DIRECTORS  
EFFECTIVE DECEMBER 31, 1995**

TITLE	NAME	BUSINESS ADDRESS & PHONE NUMBER	RESIDENCE ADDRESS
CHAIRMAN	ROBERT M. KAUFMAN	1585 BROADWAY NEW YORK, NY 10036 (212) 909-7000	345 EAST 62ND STREET NEW YORK, NY 10022
PRESIDENT AND CHIEF EXECUTIVE OFFICER	EUGENIO FAZELLI	705 INDUSTRIAL DRIVE LEXINGTON, SC 29072 (803) 951-1000	111 LAME HORSE ROAD COLUMBIA, SC 29223
DIRECTOR	ANTHONY ATKINSON	705 INDUSTRIAL DRIVE LEXINGTON, SC 29072 (803) 951-1010	2 HOLLY HOCK COURT FMO, SC 29063
DIRECTOR	MARCELLO A. DE GIORGIS	RFD 1, BOX 79 INDIAN ORCHARD ROAD LAKEVILLE, CT 06039	RFD 1, BOX 79 INDIAN ORCHARD ROAD LAKEVILLE, CT 06039
DIRECTOR	GEORGE T. BERRY	COUNTRY ROUTE 8 BOX 96 ANCRAMDALE, NY 12503	COUNTRY ROUTE 8 BOX 96 ANCRAMDALE, NY 12503
DIRECTOR	GIUSEPPE MORCHIO	VIALE SARCA, 202 MILAN, ITALY 20123 20-2-8442-2238	MILAN, ITALY 20123
DIRECTOR	PIERO SIERRA	PIAZZALE CADORNA, 5 MILAN, ITALY 20123 20-2-8535-1041	MILAN, ITALY 20123



**FILED**

1977

LINCOLN HICKS  
SECRETARY OF STATE

**Name and Registered Agent**

**UNITED STATES CORP. COMPANY**  
**830 GEAR TAVERN ROAD**  
**WEST TRENTON NJ 08628**

**Name and Main Business Address**

**PIRELLI CABLE CORPORATION**  
**708 INDUSTRIAL DRIVE**  
**LEXINGTON SC 29072**

NAME 0100-0581-88

STATE DE

PLANS MONTH/YEAR 03/1987

PLANS DAY 07

PLANS TIME 140:00

(1) FED ID # 13-2843525 (2) SIC # 3490

NAME PIRELLI CABLE CORPORATION		CITY	STATE	ZIP
MAIN BUSINESS ADDRESS 705 INDUSTRIAL DRIVE		LEXINGTON	SC	29072
OFFICER/TITLE		ADDRESS	CITY	STATE ZIP
XX				
PLEASE ENTER OFFICER/TITLE AND ADDRESS INFORMATION IN BOX 5		97075511		
XX				
(3) AGENT	UNITED STATES CORP. COMPANY 830 BEAR TAVERN ROAD		WEST TRENTON	NJ 08628
MUST BE COMPLETED/TYPED		ADDRESS	CITY	STATE ZIP
(4) MAIN BUSINESS ADDRESS	705 INDUSTRIAL DR		LEXINGTON	SC 29072
(5) OFFICER/TITLE/ADDRESS	SEE ATTACHED LIST			
OFFICER/TITLE/ADDRESS				
OFFICER/TITLE/ADDRESS				
(6) DO YOU HAVE A PRINCIPAL BUSINESS OFFICE IN ALJ?	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES ADDRESS			

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ARNEW

(7)

*[Signature]*

VKE President DATE 3/27/97

MAN OF BOARD, PRES. VP, REG. AGT. OR SEN. PARTNER

NEW YORK AIRPORT 1987

## PIRELLI CABLE CORPORATION CORPORATE OFFICERS

NAME	TITLE	BUSINESS ADDRESS	RESIDENCE ADDRESS
Coffey, Martyn	Vice President, Operations- Energy Division	705 Industrial Drive Lexington, SC 29072	2215 Riding Ridge Road Columbia, SC 29223
Dalton, Robert E.	Vice President, Sales and Marketing - Energy Division	705 Industrial Drive Lexington, SC 29072	7 Tavern Court Blythewood, SC 29016
Heiar, Glenn J.	Vice President and Chief Financial Officer	705 Industrial Drive Lexington, SC 29072	250 Crossbow Drive #K-22, Building 8 Columbia, SC 29212
Huppert, Bernard	Vice President, Treasury and Pensions	705 Industrial Drive Lexington, SC 29072	Ahornstrasse 5 CH-4153 Reinach Switzerland
Izett, Martin N.	Vice President, Corporate Purchasing	705 Industrial Drive Lexington, SC 29072	120 North Ridge Road Columbia, SC 29223
Jalovec, John S.	Vice President, Information Systems	705 Industrial Drive Lexington, SC 29072	118 Woodsvlew Lane Columbia, SC 29223
Jefferis, Nancy R.	Assistant Secretary	705 Industrial Drive Lexington, SC 29072	100 Barrister Court Lexington, SC 29073
Kaufman, Robert M.	Chairman of the Board	1585 Broadway New York, New York 10036	345 East 52nd Street New York, NY 10022
McKiviry, John W.	Vice President, Risk Management	705 Industrial Drive Lexington, SC 29072	11 Beaver Pond Road Madison, CT 06443
Monteith, Jerome F.	Vice President, Human Resources	705 Industrial Drive Lexington, SC 29072	1161 Point View Road Chapin, SC 29036
Rahman, Mujib Mir	Vice President and Chief Engineer	705 Industrial Drive Lexington, SC 29072	115 North Ridge Road Columbia, SC 29223
Razelli, Eugenio	President and Chief Executive Officer	705 Industrial Drive Lexington, SC 29072	111 Lane Horse Road Columbia, SC 29223
Robinson, Raymond L.	Vice President and General Manager - Communications Division	705 Industrial Drive Lexington, SC 29072	509 E. Springs Road Columbia, SC 29223
Rosenzweig, Alexander	Vice President, General Counsel & Secretary	705 Industrial Drive Lexington, SC 29072	2500 Johnson Avenue Apt 19-G Bronx, NY 10463

As of December 31, 1996



## PIRELLI CABLE CORPORATION DIRECTORS

<u>NAME</u>	<u>TITLE</u>	<u>BUSINESS ADDRESS</u>	<u>RESIDENCE ADDRESS</u>
Kaufman, Robert M.	Chairman	1585 Broadway New York, NY 10036	345 East 52nd Street New York, NY 10022
Razelli, Eugenio	Director	705 Industrial Drive Lexington, SC 29072	111 Lane Horse Road Columbia, SC 29223
Morchio, Giuseppe	Director	Viale Sarca 202 Milan, Italy 20123	Milan, Italy 20123
Sierra, Piero	Director	Piazzale Cadorna, 5 Milan, Italy 20123	Milan, Italy 20123





# Electronicstalk

News for Electronics Engineers worldwide ...updated daily



News Release from: **Prysmian Cables and Systems**  
Edited by the Electronicstalk Editorial Team on **18 October 2005**

## New name in the cable market

**Following its acquisition by Goldman Sachs Capital Partners on 28th July 2005, the former Pirelli Cables and Systems has now been renamed as Prysmian Cables and Systems.**

**Note:** Readers of the Editor's free email newsletter will have read this news when it was announced. Send us a blank email now to [join the circulation](#). It's free!

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**Following its acquisition by Goldman Sachs Capital Partners on 28th July 2005, the former Pirelli Cables and Systems has now been renamed as Prysmian Cables and Systems.**

Prysmian will continue to operate and develop its business in the two core cable sectors of telecomms

and energy, continuing a history of more than 130 years of activity in these markets. The company will maintain its existing product portfolio which covers the full range of energy cable products - from very high voltage cable for submarine and terrestrial installation through to industrial applications including amongst others OGP, mining, shipping and railways.

The telecomms portfolio is equally comprehensive featuring a full range of optical cables and fibres together with conventional copper and xDSL cable products.

The long term success of the company has been based on a continuous programme of investment in key business sectors, sustained development of high quality products and a close attention to the needs of the market.

In line with this strategy Prysmian recently announced the opening of a new facility in Brazil which will produce umbilical cables for the offshore power industry.

CEO of Prysmian, Valerio Battista says: 'Our strategy is to continue working as an innovative partner of all of our customers, continuing to develop new and better products for them'.

'We operate in a complex and changing market environment and we will continue to strive for excellence in both the products and services which we provide to our clients'.

- **Prysmian Cables and Systems: contact details and other news**
- **Other news in Cables and Wires**
- Email this news to a colleague
- Send us a blank email now to get the Editor's free regular email newsletter
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Pirelli & C. - Accomandita per Azioni  
Head office in Milan - Via G. Negri 10  
Share capital Euros 326,177,710.04 fully paid-in  
Milan Companies Registry  
and Tax Code No. 00860340157

Annual Report 2001 - 130th year

BAH000003

## PIRELLI & C. Accomandita per Azioni

Leopoldo Pirelli

*Honorary Chairman*

---

### BOARD OF MANAGING PARTNERS

---

Marco Tronchetti Provera

*Chairman*

Alberto Pirelli

*Deputy Chairman*

Carlo Buora

Luigi Orlando

Carlo Alessandro Puri Negri

Sergio Lamacchia

*Secretary to the Board*

---

### BOARD OF STATUTORY AUDITORS

---

Roberto Bracchetti

*Chairman*

Paolo Lazzati

*Standing Auditor*

Salvatore Spiniello

*Standing Auditor*

Paolo Colombo

*Alternate*

Marco Reboa

*Alternate*

---

### GENERAL MANAGER

---

Carlo Alessandro Puri Negri

---

### INDEPENDENT AUDITORS

---

PricewaterhouseCoopers S.p.A.

Note: The nature of the powers delegated to the Chairman and Deputy Chairman is described on page 40 under Corporate Governance.

## **NOTICE OF ANNUAL GENERAL SHAREHOLDERS' MEETING**

Notice is hereby given that the Annual General Meeting of the shareholders of Pirelli & C. - Accomandita per Azioni, in ordinary session, will be held in Milan, at the Associazione Industriale Lombarda in Via Pantano 9 at 10:30 A.M.

- Friday, May 10, 2002 in first call
  - Monday, May 13, 2002 in second call
- to discuss the following

### **AGENDA**

- 1) Report of the Managing Partners; Report of the Board of Statutory Auditors; financial statements for the year ended December 31, 2001; appropriation of net income.
- 2) Appointment of the Board of Statutory Auditors and its Chairman; determination of the remuneration to the standing members of the Board.
- 3) Appointment of the audit firm, in accordance with Legislative Decree No. 58 dated February 24, 1998, article 159, and Consob recommendation in Communication No. 97001574 dated February 20, 1997, for the audit of the statutory financial statements, the consolidated financial statements and the six-month reports for the years ending December 31, 2002, 2003 and 2004.
- 4) Proposal for the purchase and disposition of treasury shares, after canceling the resolution voted by the shareholders' meeting of May 11, 2001, as it was not used.

Pertinent and related resolutions.

Conferring of powers.

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## FIVE-YEAR SUMMARY OF SELECTED CONSOLIDATED FINANCIAL DATA

(in millions of euros)

	2001	2000	1999	1998	1997
Net sales	7,762	7,697	6,654	5,655	6,095
Gross operating profit	704	850	699	733	700
Operating profit	297	432	322	397	403
Net income	194	3,759	293	282	314
Net income attributable to Pirelli & C.	125	1,405	86	74	77
Earnings per share (in euros)	0.20	2.28	0.14	0.12	0.17
Fixed assets	7,092	3,728	3,312	2,916	2,439
Net working capital	1,314	667	1,401	1,256	1,182
Net invested capital	8,406	4,395	4,713	4,172	3,621
Shareholders' equity	5,407	5,844	2,313	2,245	2,469
Provisions	970	1,186	803	731	686
Net financial (liquidity)/debt position	2,029	(2,635)	1,597	1,196	466
Net equity attributable to Pirelli & C.	2,119	2,171	809	748	598
Equity per share (in euros)	3.39	3.52	1.35	1.20	1.33
Free cash flows	26	176	96	122	227
Net cash flows	(4,691)	4,118	(388)	(1,235)	(3)
R&D expenditures	237	213	200	196	183
Capital expenditures	646	570	476	390	334
Gross operating profit/ Net sales	9.07%	11.04%	10.50%	12.96%	11.48%
Operating profit/ Net sales	3.83%	5.61%	4.84%	7.02%	6.61%
Net income/ Net equity	3.59%	64.32%	12.67%	12.56%	12.72%
Net income/ Net invested capital	3.53%	9.83%	6.83%	9.52%	11.13%
Net financial position/ Net equity	0.38	(0.45)	0.69	0.53	0.19
Pirelli & C. ordinary shares (No. in millions)	591.4	582.8	563.6	563.6	414.4
Pirelli & C. saving shares (No. in millions)	34.4	34.4	34.4	34.4	34.4
Total Pirelli & C. shares (No. in millions)	625.8	617.2	598.0	598.0	448.8
Treasury (No. in millions)	2.6	2.6	2.6	2.6	0.8

## REPORT OF THE MANAGING PARTNERS

Dear Shareholders,

The consolidated financial statements of the Pirelli & C. Group for the year ended December 31, 2001 show a net income of Euros 194 million compared to Euros 3,759 million in the prior year.

As you will recall, last year benefited from significant extraordinary income which had regarded both the Pirelli S.p.A. group and the Pirelli & C. Real Estate S.p.A. group. These financial statements are affected by further structure and industrial restructuring costs for Euros 151 million.

The net income, after minority interest, is equal to Euros 125 million compared to Euros 1,405 million in the prior year.

Net sales amount to Euros 7,762 million, with a slight increase (+0.8 percent) compared to 2000.

The change is due mainly to volume increases (+4.6 percent) and positive price effects (+1.3 percent) countered by the negative exchange effect due to the conversion into euros (-2.7 percent) and a deterioration in the mix and other factors (-2.4 percent).

Gross operating profit is Euros 704 million (9.1 percent of net sales) compared to Euros 850 million in 2000 (11 percent of net sales).

Operating profit decreased from Euros 432 million (5.6 percent of net sales) to Euros 297 million (3.8 percent of net sales).



Projects realized by Pirelli & C. Real Estate: the Teatro degli Arcimboldi, inaugurated on January 19, 2002

In the industrial sector, this trend reflected the considerable worsening of the world economic situation and, starting from the second half of the year, the heightened crisis in the reference market of the Cables and Systems Sector – Telecommunications and also the lower contribution from the last part of the supply agreement with Cisco Systems (Euros 59 million compared to Euros 83 million in 2000).

As regards the real estate sector, instead, a positive trend was reported in the market of reference and the operating income of the subsidiary Pirelli & C. Real Estate S.p.A., equal to Euros 44 million, posted an increase of 28 percent over the prior year.

The net financial position went from a liquidity position of Euros 2,635 million to a debt position of Euros 2,029 million.

The change from the prior year is principally due to the investment in Olimpia S.p.A. (Euros 3,170 million, including related expenses), the payment of income taxes that had already been accrued in the prior year (Euros 634 million essentially connected to the gains on the Corning and Cisco deals), the purchase of Pirelli S.p.A. shares (Euros 326 million), the payment of dividends to third parties (Euros 329 million) and the payment of Euros 173 million for the production optimization program that was accrued in the 2000 financial statements.

The financial statements at December 31, 2001 of Pirelli & C., the parent company, show a net income of Euros 148 million compared to Euros 260 million in the prior year.

It should be noted that last year, the recognition of dividends on the accrual basis led to the recording of higher dividends totaling Euros 114 million.



The new Eufori@ Run Flat tyre, the latest manufactured by the Modular Integrated Robotized System (MIRS).

## THE GROUP

As far as the industrial sector is concerned, 2001 marked a sharp slowdown of the United States economy, the persisting crisis in Japan, the failure of the European economy to take off and, in particular, the intensification of the crisis in the telecommunications market.

Following the decision, first mentioned in last year's report, to separate the Energy operations from the Telecom operations, with the aim of improving the strategic focus and operational effectiveness, during the year action was taken to separate the cables operations in the various countries.

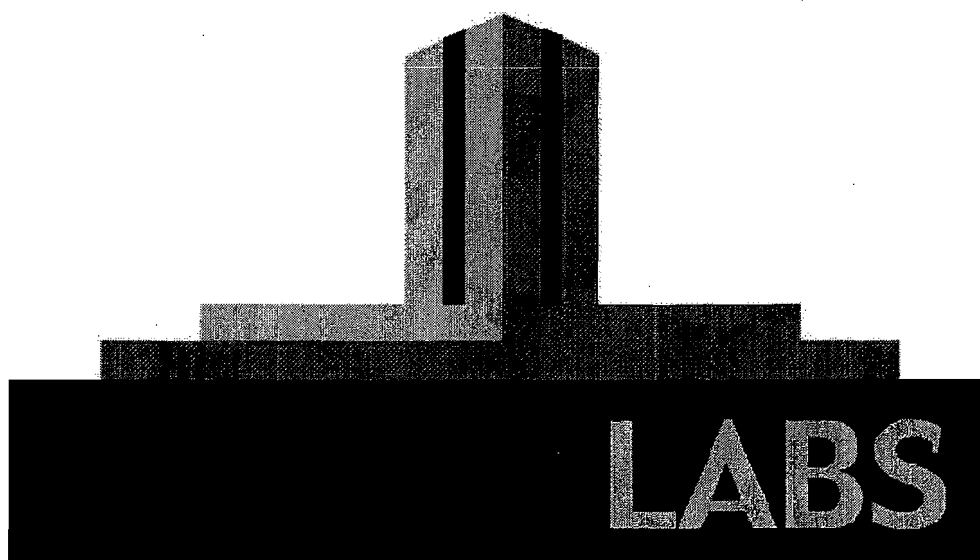
The transaction was concluded at the end of 2001 with the creation of the two holding companies, Energy and Telecom, resulting from the spin-off of Pirelli Cavi e Sistemi S.p.A..

In 2001, the real estate sector completed its corporate and organizational restructuring following the acquisitions made during the course of 1999 and 2000 (Unim, the real estate assets of Compart, Parnasi, RCS and Risanamento Napoli, and Cagisa, Regus Italia and Agied) and gave the go-ahead to a new series of important transactions (Altair, Edilnord and Banca di Roma).

The results reached during the year have been satisfactory.

The main events, in chronological order, that occurred during 2001 are described below:

- in the first half of the year, Pirelli S.p.A. sold No. 32,023,550 treasury shares on the market for net proceeds of Euros 124 million, realizing a pretax gain of Euros 30 million;
- in April 2001, Pirelli Cavi e Sistemi S.p.A. and e.Biscom S.p.A. negotiated a cooperation agreement which also calls for the joint development of new solutions for access to the Internet and Internet Video using fiber optics ("fiber to



The logo of Pirelli Labs, the new research center of the Pirelli Group, a project realized by Pirelli & C. Real Estate in Bicocca.

- the home"). In this context, Pirelli Cavi e Sistemi also purchased No. 484,500 e.Biscom S.p.A. shares (equal to 1 percent of share capital) for Euros 49 million;
- in May 2001, the company Pirelli Labs S.p.A. was set up. This is the new research center for basic and advanced research of the Pirelli group;
  - in June 2001, Pirelli Cavi e Sistemi S.p.A. and Alloptic Inc., the market start-up leader providing IP, Gigabit Ethernet fiber optic solutions for access networks, signed an agreement – in which, among other things, Pirelli Cavi e Sistemi S.p.A. purchased a 15.4 percent stake in the company for US \$12 million in July – for the development of new optical solutions for access networks;
  - on July 30, 2001, Pirelli S.p.A. (hereinafter "Pirelli") and Edizione Holding S.p.A. (hereinafter "Edizione") signed an agreement with Bell S.A. (hereinafter "Bell") for the acquisition, through a company to be named, of the Olivetti S.p.A. (hereinafter "Olivetti") stock package owned by Bell, representing about 23.3 percent of Olivetti's share capital.

The agreement called for the acquisition of No. 1,552,662,120 ordinary shares and No. 68,409,125 warrants 2001-2002 on ordinary shares of Olivetti S.p.A. (hereinafter "Olivetti Investment"), at a per unit price, respectively, equal to Euros 4.175 and Euros 1.0875, for a total price of Euros 6,557 million, with a value date at August 31, 2001. The value date was to indicate that the price for the Olivetti Investment would be reduced if the payment was made before August 31, 2001 and increased if made after that date on the basis of the following formula: interest = total price x (1-month Euribor + 0.75 percent) x the number of days of early or delayed payment / 360.

The purchase transaction was subject to receipt of the necessary authorizations, in particular from the EU Commission. This authorization was received on September 20, 2001.

On August 3, 2001, Pirelli S.p.A. (80 percent) and Edizione Finance International S.p.A. (20 percent – a wholly-owned company of Edizione), set up Olimpia S.p.A. (hereinafter "Olimpia"), the company designated for the acquisition of the aforementioned Olivetti Investment.

On August 9, 2001, Kallithea S.p.A. (a subsidiary of Pirelli S.p.A.) sold No. 147,337,880 Olivetti ordinary shares (equal to about 2.02 percent of share capital) to Olimpia for a price per share of Euros 4.193, for a total of approximately Euros 618 million. Pirelli Finance Luxembourg S.A. (a subsidiary of Pirelli S.p.A.) and Edizione sold a total of No. 265,302,250 Olivetti ordinary shares (equal to about 3.64 percent of share capital) to Olimpia at a total price of approximately Euros 576 million.

On September 19, 2001, an agreement was signed among the majority shareholders of Bell, Pirelli, Edizione and Olimpia which called for a commitment by the majority shareholders of Bell to ensure that the latter, at the same time payment was made by Olimpia for the purchase of the Olivetti Investment, subscribed to bonds issued by Olimpia itself, with the following features: 6-year bonds for an amount of approximately Euros 1,033 million, repayable at maturity, unless the bonds are

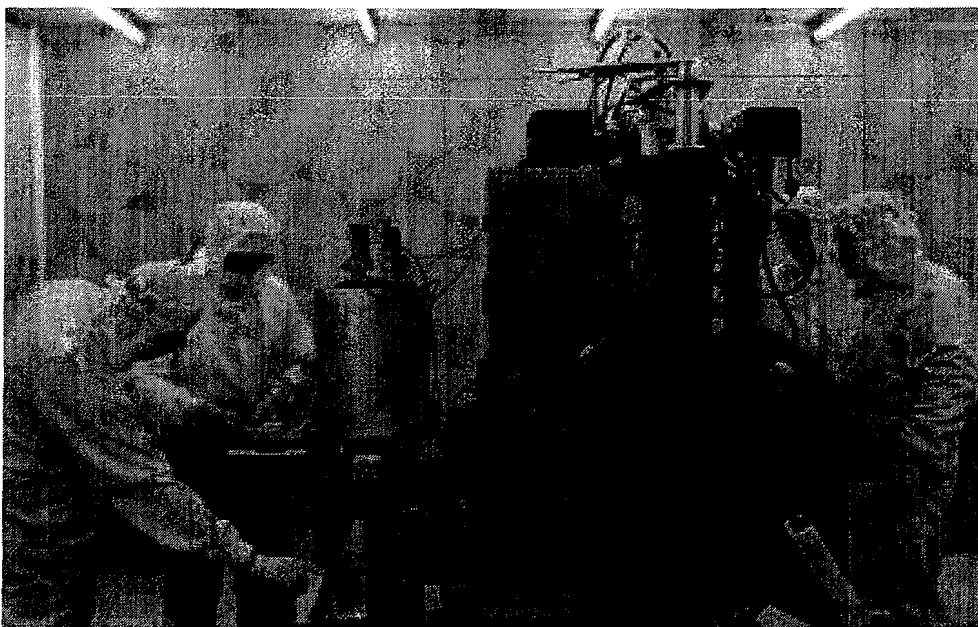
redeemed in advance by the bondholder, convertible in No. 263,500,000 Olivetti shares in a ratio of one share for every bond of face value Euros 3.92, bearing an annual fixed rate of interest of 1.5 percent, payable in cash at maturity or at the date of early redemption.

The agreement also called for the transfer of the Olivetti Investment in two tranches, the first for No. 552,000,000 Olivetti shares to be carried out on September 27, 2001 and the second for the remaining shares and warrants by October 12, 2001.

In execution of the above agreement, on September 27, 2001, No. 552,000,000 Olivetti ordinary shares were transferred from Bell to Olimpia (for an equivalent amount of Euros 2,315 million), while on October 5, 2001, the remaining No. 1,000,662,120 Olivetti ordinary shares and No. 68,409,125 warrants were transferred from Bell to Olimpia (for an equivalent amount of Euros 4,199 million and Euros 74 million, respectively). On the same date, October 5, 2001, Bell subscribed to the "Olimpia S.p.A. 1.5% 2001-2007" bonds with the features described above.

Under the agreements on July 30, 2001, Pirelli and Edizione agreed to purchase a further 54 million Olivetti shares, held originally by Banca di Roma, for a price of some Euros 225 million, corresponding to a price per share of Euros 4.175. Based on these agreements, on October 31, 2001, with the value date and delivery of the stock on November 2, 2001, Olimpia purchased these shares and thus came to hold approximately 27.7 percent of the share capital of Olivetti.

On November 20, 2001, in order to hedge the risk on the value of the Olivetti shares to be delivered to the holders of the Olimpia bonds described above, Olimpia signed a forward purchase agreement with UniCredit Banca Mobiliare S.p.A. and Caboto



Optical technology research in the Pirelli laboratories.

IntesaBci S.p.A. (ex-Caboto Holding Sim S.p.A.), for No. 263,500,000 Olivetti ordinary shares at a price equal to the average purchase price of the transaction at the market price (some Euros 1.37 per share) plus a premium equal to some 32 percent of the average purchase price. Settlement can be made through the physical delivery of the shares against payment of the agreed price or payment of the differentials compared to the market price.

Consequently, the forward price per share would be Euros 1.81, which corresponds to a total of Euros 476 million.

The liability for the bonds was shown by Olimpia at their redemption value, or at the forward purchase price of the aforementioned Olivetti shares.

The difference compared to the face value of the bonds equal to Euros 529 million was recorded as a reduction of the Olivetti Investment held by Olimpia in proportion to the shares and warrants purchased on September 27 and October 5, 2001.

On November 23, 2001, after the capital increase voted by the Board of Directors of Olivetti on October 13, 2001, Olimpia, by exercising its option rights to which it is entitled of 50 percent in shares and 50 percent in bonds, subscribed to No. 504,825,563 shares (for a price of some Euros 505 million) and No. 504,825,562 Olivetti 1.5% 2001-2010 convertible bonds with a premium at redemption (for a price of some Euros 505 million).

As of today, after these transactions, Olimpia holds No. 2,524,127,813 Olivetti shares (equal to some 28.7 percent of the share capital of Olivetti), No. 504,825,562 Olivetti 1.5% 2001-2010 convertible bonds with a premium at redemption and No. 68,409,125 Olivetti 2001-2002 warrants on ordinary shares.

At December 31, 2001, the average carrying value per share of Olivetti stock, recorded in the financial assets by Olimpia, is equal to Euros 3.14 (taking into account the convertible bonds, the carrying value would fall to Euros 2.78 per share).

Such carrying value, based on evaluations made at the time of acquisition, and now re-confirmed, and taking in consideration of Olivetti's future prospects, has been maintained, since no permanent impairment in value has been determined.

The warrants, too, have been kept at cost, adjusted by the amount mentioned above, insofar as it is Olimpia's intention to convert the warrants into shares by the expiry date.

As of today, the share capital of Olimpia is fully paid-in and is equal to Euros 1,562,596,150, consisting of No. 1,562,596,150 shares of par value Euros 1 each. This share capital is held by Pirelli (60 percent), Edizione Finance International S.A. (20 percent), IntesaBci S.p.A. (10 percent - hereinafter "IntesaBci") and UniCredito Italiano S.p.A. (10 percent - hereinafter "UniCredito").

There are shareholders' agreements among Olimpia's shareholders regulating the powers and discipline of their common quality as shareholders.

In particular, shareholders' agreements have been signed between Pirelli and Edizione on August 7, 2001, amended on September 14, 2001 and February 13, 2002 (hereinafter "Agreements") and between Pirelli, IntesaBci and UniCredito on September 14, 2001 - amended on September 26, 2001 and October 24, 2001 - (hereinafter "Agreements with the Banks").

Both agreements cover a three-year period and can be tacitly renewed at each expiration date. The tacit renewal is for three years for the Agreements and for two years for the Agreements with the Banks.

The Agreements and the Agreements with the Banks cover the rules for the nomination of the Board of Directors of Olimpia and that of Olivetti, Telecom Italia S.p.A., Tim-Telecom Italia Mobile S.p.A. and Seat-Pagine Gialle S.p.A.. They indicate the so-called Key Issues, on which the board resolutions of Olimpia, Olivetti, Telecom Italia S.p.A., Tim-Telecom Italia Mobile S.p.A. and Seat-Pagine Gialle S.p.A. must be decided according to such rules. They discuss the rules for the composition and resolution of dissent among the contracting parties on Key Issues (so-called Deadlock). They govern the inter partes consequences of any change in the structure of control of Pirelli (Agreements with the Banks) and of Edizione or of Pirelli (Agreements). They attribute to contracting parties the right to purchase or sell (puts and calls) Olimpia shares in the event of withdrawal from the agreements themselves.

Consob - National Commission for Corporations and the Stock Market - in its resolution dated October 30, 2001, which dealt with the matter of the authorization for the publication of the Olivetti prospectus for the offer of options on Olivetti ordinary shares and Olivetti 2001-2010 bonds, asked that the above prospectus indicate, based on Consob's evaluation, that de facto control of Olivetti is held by Olimpia and Olimpia is subject to the sole control of Pirelli. Consob explained the reasons why this supplementary information was requested in the communication published in the "Consob Informa" Newsletter dated November 5, 2001.

Pirelli did not agree with the reasons expressed by Consob for its decision and on December 6, 2001 filed a request to review the matter so that the questions surrounding the issue could be reexamined and the comments expressed about Olimpia's control over Olivetti could be revised.

On January 8, 2002, under ruling No. RM/2001124, Consob gave its decision not agreeing with the request to review the matter of qualifying the holdings between Pirelli and Olimpia and between Olimpia and Olivetti.

Since the rulings were adverse, Olivetti, Pirelli and Olimpia filed an appeal with the Regional Administrative Court of Lazio to obtain their cancellation. The Regional Administrative Court of Lazio, in the sentence handed down on February 25, 2002, ruled favorably on the appeal, canceling the rulings that were contested.

Also as a result of this decision, in the 2001 financial statements, Olimpia, in accordance with the combined provisions of art. 2426, paragraph 4 of the Italian Civil Code and Legislative Decree No. 127/91, art. 36, paragraph 3 and art. 37, was accounted for by the equity method based on the financial statements of Olimpia at December 31, 2001.



Nonetheless, proforma financial statements are attached wherein the investment in Olimpia is consolidated line-by-line and the investment in Olivetti is valued using the equity method.

It should be highlighted that Pirelli did not issue any form of guarantee on behalf of Olimpia and the Olivetti-Telecom group with respect to the financing which they received.

Within the framework of the strategy for financial investment in the Olivetti group, Pirelli, through its subsidiary Pirelli Finance Luxembourg S.A.:

- purchased, on November 7, 2001, a call option on No. 100,000,000 Olivetti ordinary shares and Olivetti S.p.A. 2001-2010 convertible bonds.

The main features of the option, carried out with Morgan Guaranty Trust, are as follows:

- strike price: Euros 1 per share or bond;
  - expiry date: October 5, 2007;
  - premium: Euros 28.1 million paid at the beginning of the transaction and an annual amount equal to 2.75 percent of the strike price multiplied by the average number of securities outstanding;
  - exercise date: at any time after 60 days subsequent to November 23, 2001 and 45 days before October 5, 2007;
  - settlement: physical delivery of the securities or settlement of the differential in cash, as elected by Pirelli. In the event of physical delivery, Pirelli can choose whether to receive Olivetti stock or convertible bonds.
- subscribed, with Credit Agricole Lazard FP Bank, on November 14, 2001, to a derivative equity swap on No. 200,000,000 convertible bonds 2001-2010 having the following features:
    - initial purchase price: Euros 1.3368 per bond;
    - initial premium: difference between the initial purchase price and Euros 1 paid at the beginning of the transaction (Euros 67.4 million) and a one-off fee equal to 1.125 percent of the face value (Euros 2.2 million);
    - expiry date: November 23, 2006;
    - annual flows: 12-month Euribor plus a spread of 150 bps payable net of the bond coupon equal to 1.5 percent of the face value receivable;
    - settlement: physical delivery of the securities or settlement of the differentials with the market prices of the securities.

- on July 31, 2001, under the agreements signed on March 24, 1998 between Pirelli & C. and BZ group Holding Limited and renewed on March 23, 2001, BZ exercised the first sales option relating to 2.5 percent of Pirelli S.p.A. ordinary shares.

Pirelli & C., consequently, purchased No. 47,933,279 Pirelli S.p.A. ordinary shares at a price of Euros 3.53218 per share, which is equal to the average market price of the stock in the ninety sessions prior to the exercise date.

During 2001, Pirelli & C. also purchased No. 52,223,000 Pirelli S.p.A. shares on the market at a average price of Euros 2.50 per share and No. 8,500,000 Pirelli S.p.A. savings shares at an average price of Euros 3.05 per share.

At December 31, 2001, Pirelli & C. holds, directly and indirectly, through Pirelli

& C. Luxembourg S.A., 38.37 percent of the voting capital (37.11 percent of the entire share capital) of Pirelli S.p.A..

- in August 2001, together with Aedes Immobiliare S.p.A., a contract was signed with the Fininvest Group for the purchase of Edilnord 2000. The agreement called for the acquisition, by Pirelli & C. Real Estate, of 100 percent of the share capital of the three Service companies (Edilnord Progetti, Edilnord Gestioni and Servizi Immobiliari Edilnord) and the acquisition of qualified minority holdings, together with their management, in keeping with the usual business model, in vehicle companies owning property zoned for building in the Milan area.
- in October, together with "The Morgan Stanley Real Estate Fund", a binding commitment was signed with Banca di Roma for the purchase of real estate property valued at some Euros 560 million. The manner of leveraging the value of this portfolio will be brought about by structuring the operation in a manner consistent with the usual business model of the company.
- in December, a project was begun – the guidelines of which were later approved by the companies involved in the project – to optimize and integrate the assets and the service activities in the respective real estate areas of the Olivetti-Telecom Group and the Pirelli Group.
- in 2001, Pirelli presented a fashion project which called for the development of articles of leisure wear for men and women using an innovative design created with quality materials and state-of-the-art technology.

The first results of this projects are the PZero Aria parka and PZero Acqua footwear.

Each model is produced under license by the most qualified company in terms of know-how in the specific area of expertise.



The PZero Acqua shoe in the new fashion line presented by Pirelli.

Key figures of the consolidated financial statements can be summarized as follows:

	(in millions of euros)	
	12/31/2001	12/31/2000
• Net sales	7,762	7,697
• Gross operating profit	704	850
% of net sales	9.1%	11.0%
• Operating profit	297	432
% of net sales	3.8%	5.6%
• Financial income (expenses)	(70)	(120)
• Income before extraordinary items and income taxes	227	312
% of net sales	2.9%	4.1%
• Extraordinary items	156	4,521
• Income before income taxes	383	4,833
% of net sales	4.9%	n.s.
• Income taxes	(189)	(1,074)
• Net income	194	3,759
% of net sales	2.5%	n.s.
• Net income attributable to Pirelli & C.	125	1,405
• Earning per share (in euros)	0.20	2.28
• Shareholders' equity	5,407	5,844
• Net equity attributable to Pirelli & C.	2,119	2,171
• Equity per share (in euros)	3.39	3.52
• Net financial (liquidity)/debt position	2,029	(2,635)
• Capital expenditures	646	570
• R&D expenditures	237	213
• Employees (at year-end)	39,771	42,509

## SALES

Net sales total Euros 7,762 million compared to Euros 7,697 million in the prior year. The change of 0.8 percent can be ascribed to the following:

• Currency exchange effect	-2.7%
• Prices	1.4%
• Volumes	4.6%
• Mix and other	-2.5%
	0.8%

The distribution of net sales by sector is as follows:

Sector	2001	2000
• Pirelli S.p.A. Group		
– Cables and Systems	60.0%	59.7%
– Tyres	36.7%	37.4%
• Total Pirelli S.p.A. Group	96.7%	97.1%
• Real Estate (Pirelli & C. Real Estate S.p.A. Group)	3.4%	2.8%
• Other and intereliminations	(0.1%)	0.1%
	100.0%	100.0%

## **OPERATING PROFIT**

Operating profit is equal to Euros 297 million compared to Euros 432 million in the prior year, representing 3.8 percent of net sales (5.6 percent in 2000).

Contributing to the operating profit of Euros 297 million are the industrial sector (Pirelli S.p.A. group) for Euros 295 million (Euros 437 million in 2000) and the real estate sector (Pirelli & C. Real Estate group) for Euros 44 million (Euros 35 million in 2000).

## **EXTRAORDINARY ITEMS, NET**

Extraordinary items, net show an income balance of Euros 156 million compared to Euros 4,521 million in 2000.

Last year, as previously mentioned, extraordinary items included the gain, before income taxes, on the sale of the Terrestrial Optical Systems business to Cisco Systems (Euros 1,409 million), the gain, before income taxes, on the sale of the Optical Components business to Corning (Euros 3,351 million) and net extraordinary income, always before income taxes, connected to the transactions following the acquisition of Unim by Pirelli & C. Real Estate S.p.A. (Euros 208 million) which were offset by production restructuring and rationalization expenses of Euros 433 million.

In the current year, extraordinary items principally comprise the gains on the sale of real estate property (Euros 61 million) by the Cables and Systems Sector, an earn-out on the close of the agreements with Cisco Systems (Euros 70 million), gains by Pirelli & C. Real Estate S.p.A. (Euros 164 million) and restructuring expenses of Euros 151 million.

## **NET INCOME**

Net income amounts to Euros 194 million compared to Euros 3,759 million in 2000. The change in net income is due to the reduction in operating profit (Euros 136 million), the decrease in the net balance of extraordinary items (Euros 4,365 million), as well as the improvement in financial expenses (Euros 51 million) and a lower impact of income taxes (Euros 885 million), that, last year, were substantially connected with the Cisco and Corning transactions.

Contributing to the net income of Euros 194 million are the industrial sector (Pirelli S.p.A. group) for Euros 86 million and the real estate sector (Pirelli & C. Real Estate S.p.A. group) for Euros 161 million.

## SHAREHOLDERS' EQUITY

Shareholders' equity went from Euros 5,844 million to Euros 5,407 million, with a decrease of Euros 437 million. Details of the decrease are as follows:

• Translation adjustments	(100)
• Net income	194
• Dividends to third parties paid by	(329)
– Pirelli & C.	(129)
– Pirelli S.p.A.	(188)
– Other Group companies	(12)
• Sale of treasury shares (Pirelli S.p.A.)	94
• Purchase of Pirelli S.p.A. shares (Pirelli & C.)	(326)
• Conversion of Pirelli & C. 1998/2003 bonds	20
• Goodwill paid on the above purchases	36
• Other changes	(26)
	(437)

The attributable shareholders' equity is equal to Euros 2,119 million (Euros 3.39 per share) compared to Euros 2,171 million (Euros 3.52 per share) in the prior year.

## NET FINANCIAL POSITION

The net financial position went from a liquidity position of Euros 2,635 million at December 31, 2000 to a debt position of Euros 2,029 million at December 31, 2001. The change of Euros 4,664 million is mainly due to:

• Exchange differences	(28)
• Operating profit	297
• Depreciation and amortization	408
• Net investments:	
– Pirelli S.p.A. group	(719)
– Other	62 (657)
• Change in working capital	(8)
• Change in provisions and other changes	(14)
• <b>Free cash flow</b>	<b>26</b>
• Effect of acquisitions	(76)
• Olimpia investments	(3,170)
• Purchase of Pirelli S.p.A. shares	(326)
• Financial income (expenses)	(69)
• Extraordinary items	156
• Income taxes	(189)
• Dividends paid	(329)
• Other changes	(714)
<b>Net cash flows</b>	<b>(4,691)</b>
Other changes in shareholders' equity	55
<b>Change in net financial position</b>	<b>(4,664)</b>

"Other changes" mainly include the payment of income taxes that were already anticipated and accrued last year for Euros 634 million and the payment of Euros 173 million for the production optimization program that was already accrued in the 2000 financial statements, as well as the sale of Pirelli S.p.A. treasury shares (Euros 94 million).

### **DEBT TO EQUITY RATIO**

The debt to equity ratio is 0.38. This is not comparable to the ratio in 2000 which included the above-mentioned extraordinary items, but shows an improvement over 1999 (0.53).

### **CAPITAL EXPENDITURES**

Capital expenditures total Euros 646 million compared to Euros 570 million in 2000.

### **R&D EXPENDITURES**

R&D expenditures are entirely charged to the statement of income and amount to Euros 237 million compared to Euros 213 million in 2000. They represent 3.1 percent of net sales (2.8 percent in 2000).

### **EMPLOYEES**

Employees number 39,771 compared to 42,509 at December 31, 2000, with a net reduction in the industrial sector and a significant increase in the real estate sector.

## SIGNIFICANT SUBSEQUENT EVENTS

In February, Pirelli Finance (Luxembourg) S.A. signed a derivative equity swap agreement with J.P. Morgan on No. 100,000,000 Olivetti S.p.A. shares, expiring December 2006.

Settlement can either be made through the physical delivery of the shares or through the payment of the differentials compared to the market prices.

The initial price is equal to Euro 1.4213 per share plus quarterly interest at the 3-month Euribor plus a spread of 143 bps.

The Board of Directors of Pirelli & C. Real Estate S.p.A., in its meeting of March 13, 2002, convened the Shareholders' Meeting for April 2, 2002, which, in the ordinary session called to vote on the proposal to list the ordinary shares on the Mercato Telematico Azionario, while in the extraordinary session, the shareholders voted to increase share capital for the stock's listing and introduce a stock option plan for the employees and directors of the Company aimed at promoting corporate allegiance in the medium to long term.

In March, the placement was completed for bonds of Euros 500 million issued by Pirelli Finance (Luxembourg) S.A., maturing April 4, 2007, with a fixed interest rate of 6.5 percent.

The bond issue serves to satisfy the objective of refinancing short-term debt by optimizing the financial structure of the Group from the standpoint of both interest rates and maturity dates.

The proceeds from the issue are expected to be received at the beginning of April.



Pirelli & C. Real Estate properties portfolio: a building in Milan, via San Tomaso.

## OUTLOOK FOR THE CURRENT YEAR

As far as the industrial sector is concerned, the economic forecasts for the current year suggest that a recovery may be possible, as already announced, in the second half of the year. The operating profit for the industrial sector is expected to be in line with that of 2001.

As far as the real estate sector is concerned, the outlook for the current year remains positive, partly because of the good performance of the reference sector.

The consolidated operating result is thus expected to be at least in line with the prior year.

## RELATED PARTY DISCLOSURES

With reference to the disclosure required by Consob Communication No. 97001574 of February 20, 1997 and No. 98015375 of February 27, 1998 regarding transactions by Group companies with related parties, a statement is made to the effect that all the transactions, including those between Pirelli & C. and its subsidiaries, and those among subsidiaries, fall under the ordinary operations of the Group, are governed by market terms, and there are no transactions of an unusual and exceptional nature or in potential conflict of interest.

The effects deriving from the transactions between Pirelli & C. and its subsidiaries are disclosed in the financial statements and in the notes of the parent company and, like the transaction among subsidiaries, are eliminated upon the preparation of the consolidated financial statements.

Furthermore, in order to provide more complete information, the transactions in 2001 between the Pirelli & C. Group and the Olivetti Telecom group are listed below. They fall under normal operations, are carried out at arm's length and there are no transactions of an unusual and exceptional nature, or constituting a potential conflict of interests.

**revenues for goods and services**, relating mainly to the supply of telecommunications cables (Euros 21.5 million);

**costs for goods and services**, relating mainly to telephone services received (Euros 6.9 million);

**trade receivables**, relating to the supply of the goods and services described above (Euros 6.4 million);

**trade payables**, relating to the telephone services described above (Euros 0.6 million).



## PERFORMANCE OF THE MAJOR GROUP COMPANIES

### PIRELLI S.p.A. GROUP

As previously described, in accordance with the decisions handed down by the Regional Administrative Court of Lazio, in the 2001 consolidated financial statements of Pirelli S.p.A., the investment in Olimpia was accounted for using the equity method based on its financial statements at December 31, 2001.

The key consolidated figures for the year ended December 31, 2001 are presented below:

Net sales amount to Euros 7,509 million compared to Euros 7,477 million in the prior year. The increase of 0.4 percent is due to volume increases (+3.6 percent) and positive price effects (+1.3 percent) offset by the negative exchange effect on the conversion in euros (-2.6 percent) and a deterioration in the mix and other factors (-1.9 percent).

The breakdown by sector shows Cables and Systems at 62 percent and Tyres at 38 percent.

Gross operating profit is equal to Euros 666 million, a decrease of 18.8 percent compared to Euros 820 million in 2000.

The decrease is mainly due to the Cables and Systems - Telecom Sector as a result of the crisis in the telecommunications market which intensified in the second half of the year, and the lower contribution from the last phase of the supply agreement with Cisco Systems (Euros 59 million compared to Euros 83 million in 2000).

Operating profit is Euros 295 million, equal to 3.9 percent of net sales compared to Euros 437 million in 2000 (5.9 percent of net sales).

Extraordinary items show an expense balance of Euros 16 million compared to an income balance of Euros 4,277 million in 2000. In 2000, extraordinary items mainly included the pretax gain on the sale of the Terrestrial Optical Systems business to Cisco Systems (Euros 1,409 million), the pretax gain on the sale of the Optical Components business to Corning (Euros 3,351 million) and were offset by production restructuring and rationalization expenses of Euros 433 million.

In the current year, extraordinary items principally comprise the gains on the sale of real estate property (Euros 61 million) by the Cables and Systems Sector, an earn-out on the close of the agreements with Cisco Systems (Euros 70 million) and rationalization expenses of Euros 151 million.

Net income amounts to Euros 86 million compared to Euros 3,626 million in 2000. The reduction in operating profit (Euros 142 million) and the decrease in the net balance of extraordinary items (Euros 4,293 million) were countered by a lower impact of income taxes (Euros 875 million) that, last year, were substantially connected with the Cisco and Corning transactions.

The net income attributable to Pirelli S.p.A. is Euros 82 million (Euros 3,632 million in 2000) which corresponds to Euros 0.04 per share (Euros 1.82 in 2000).

Shareholders' equity is equal to Euros 5,660 million (Euros 5,958 million at December 31, 2000).

The shareholders' equity attributable to Pirelli S.p.A. is equal to Euros 5,462 million (Euros 5,756 million at December 31, 2000) which corresponds to Euros 2.72 per share (Euros 2.89 at December 31, 2000).

The net financial position went from a liquidity position of Euros 3,495 million at December 31, 2000 to a debt position of Euros 1,089 million at December 31, 2001. The change from the prior year is principally due to the investment in Olimpia S.p.A. (Euros 3,170 million, including related expenses), the payment of income taxes that had already been accrued in the prior year (Euros 614 million), the payment of dividends from 2000 profits (Euros 287 million) and the payment of Euros 173 million for the production optimization program that was accrued in the 2000 financial statements.

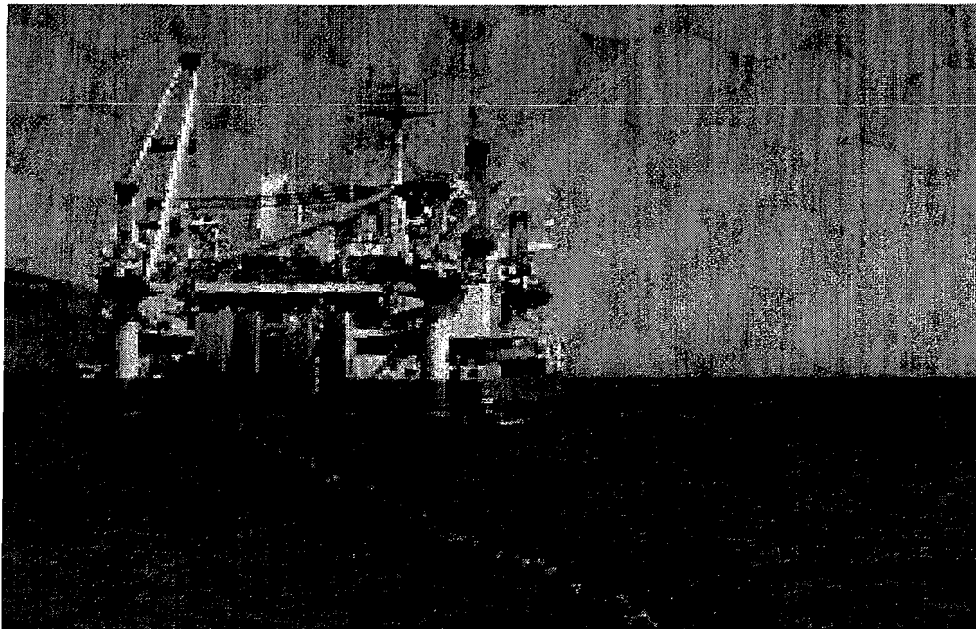
Capital expenditures amount to Euros 643 million compared to Euros 562 million in 2000.

R&D expenditures are entirely charged to the statement of income and amount to Euros 237 million (3.2 percent of net sales) compared to Euros 213 million in 2000 (2.8 percent of net sales).

At December 31, 2001 the number of employees was 39,127 compared to 41,914 at December 31, 2000.

### **Cables and Systems Sector**

Following the decision, first mentioned in last year's annual report, to separate the Energy from the Telecom operations, with a view to improving the strategic focus and operational effectiveness, the businesses were separated this year in the various countries.



The cable-laying ship Giulio Verne at work.

The operation was concluded at the end of 2001 with the two Holding Companies Energy and Telecom being set up, created by the spin-off of Pirelli Cavi e Sistemi S.p.A. (Pirelli Cavi e Sistemi Energia S.p.A. and Pirelli Cavi e Sistemi Telecom S.p.A.). For purposes of comparison with the prior year and taking into account that the activities to separate the Energy and Telecom entities continued during 2001, the results, unless otherwise indicated, refer to the aggregate total of operations.

Total sales amount to Euros 4,688 million, with an increase of 2.1 percent over the prior year: the increase is attributable to the energy sector mainly as a result of the contribution of the volumes deriving from the acquisitions in 2000 of the former BICC activities that now reflect a full year of operations, while the sales of telecommunications cables were affected by the radical downward trend of the market in the second half of the year.

Gross operating profit went from Euros 466 million in 2000 (10.2 percent of net sales) to Euros 357 million (7.6 percent of net sales) and reflects the lower contribution from the supply agreement with Cisco Systems (Euros 59 million compared to Euros 83 million in 2000) as well as higher accruals made for doubtful accounts connected with the insolvency of some customers (Euros 68 million).

Operating profit amount to Euros 179 million (3.8 percent of net sales) compared to Euros 289 million in the prior year (6.3 percent of net sales).

Extraordinary items show an income balance of Euros 11 million. The balance mainly includes the gains on the sale of real estate properties for Euros 61 million (Euros 22 million at Eastleigh-UK and Euros 39 million at Cavimar-Spain), an earn-out on the closing of the agreements with Cisco Systems (Euros 70 million) and restructuring expenses for Euros 99 million.

Net income is equal to Euros 76 million compared to Euros 1,780 million in the prior year, which mainly included the gain (before income taxes) on the sale of the Terrestrial Optical Systems business (Euros 1,409 million) and on the sale of the Optical Components business (Euros 1,081 million).

The net financial position presents a debt position of Euros 890 million, with a negative change from the prior year of Euros 2,534 million. A large part of the change refers to Euros 1,495 million for dividends paid and Euros 577 million for income taxes largely deriving from the extraordinary transactions in 2000.

The remainder of the change is due to higher investments, the most significant being in the Telecom sector and working capital requirements.

Capital expenditures in 2001 amount to a total of Euros 359 million, (+6.5 percent compared to 2000), and constitute double the amount of depreciation.

R&D is conducted by an integrated structure of research centers and development and engineering units in various countries.

A total of 894 persons were involved in R&D during the year just ended and expenditures totaled Euros 112 million, equal to 2.4 percent of total sales.

In 2001, Pirelli Labs S.p.A., the Pirelli Group's new center for basic and advanced research was established.

Pirelli Labs is the benchmark for all the Pirelli research activities throughout the world and, thanks to a series of agreements and consortiums, is directly linked to important private and university research centers in Italy and worldwide. The laboratories will be completely operational in spring 2002.

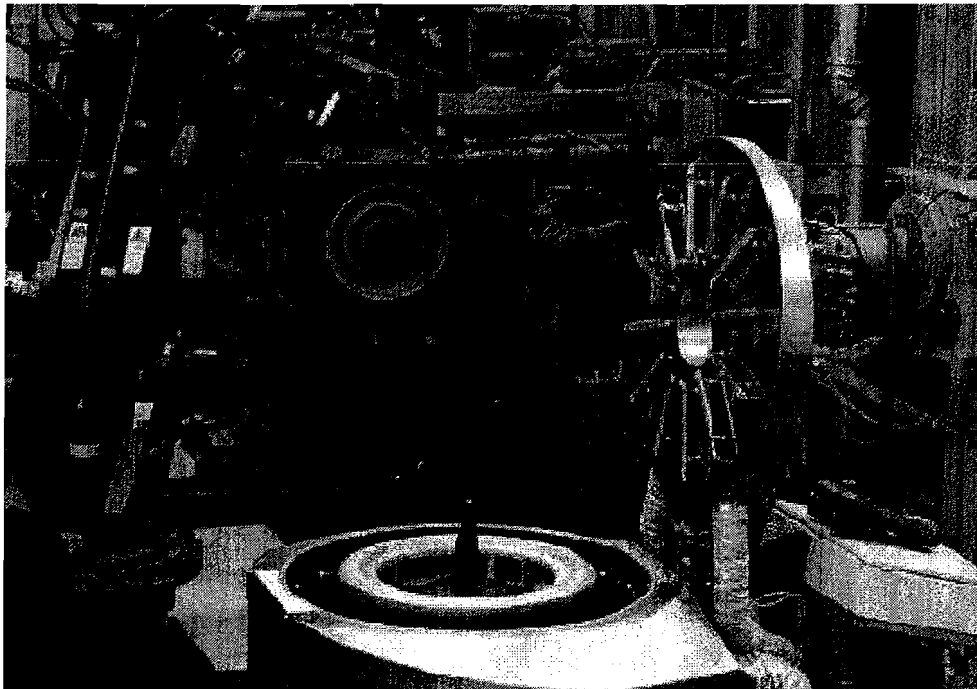
The results of these first few months show an improvement in the Telecom Sector compared to the last quarter of 2001 whereas, as far as the Energy Sector is concerned, there is some delay on the part of leading Utilities companies to invest in the segments of high voltage and submarine links.

Despite the uncertainty deriving from the instability of certain markets, it is thought that the result from ordinary operations of the current year will be in line with that of the year just ended.

### **Tyres Sector**

Net sales, equal to Euros 2,831 million, record a decrease of 1.7 percent compared to 2000. The favorable trend in the volumes (+0.5 percent) and prices/mix (+1.8 percent) was not sufficient to cover the negative currency exchange effect (-4 percent). Operating profit is Euros 172 million, representing 6.1 percent of net sales, compared to Euros 180 million in 2000 or 6.3 percent of net sales. The positive contribution by the volumes and mix, accompanied by steps taken to reduce costs, was not sufficient to compensate for the negative currency exchange effect, the erosion of prices/costs of raw materials and the increase in labor costs.

Net income is Euros 34 million, with a net extraordinary expense balance of Euros 27 million and financial expenses that are in line with the prior year. Extraordinary items include costs for employee lay-offs of Euros 26 million under the staff reorganization plan.



Building a tyre using MIRS technology.

The net financial position shows a debt position of Euros 684 million, with a decrease of Euros 64 million from the end of 2000. The effect on the net financial position of the increase in share capital of Euros 240 million in Pirelli Tyre Holding N.V. during the first half of 2001, was partly offset by the purchase of an additional stake in the Brazilian subsidiary – following its delisting from the San Paolo stock exchange – for Euros 62 million and higher investments and greater working capital requirements.

Capital expenditures total Euros 262 million in 2001, equal to 1.62 times depreciation and representing 9.3 percent of net sales.

With approximately 63 percent of capital expenditures made in European factories and 24 percent in South America, projects were geared towards innovative production processes, the expansion of the productive capacity of high performance tyres and new products.

In 2001, R&D expenditures total Euros 125 million, an increase, compared to the prior year, of approximately 11 percent and equal to 4.4 percent of net sales, justified by the efforts made to revitalize the high performance products and to definitively implement the MIRS process on an industrial scale.

In 2001, collaboration continued with leading Italian and international universities and research institutes to develop know-how, particularly in the area of advanced research into materials and innovative processes. Further experience was gained in the development of the new Pax technology, which promises to offer the market a new solution to the problems of total mobility.

### **PIRELLI S.p.A.**

The financial statements at December 31, 2001 of Pirelli S.p.A. show a net income of Euros 1,489 million compared to Euros 1,733 million in 2000.

The shareholders' equity is equal to Euros 4,985 million and reflects the net income for the year and the payment of dividends relating to the prior year.

The Board of Directors of Pirelli S.p.A. will put forth a proposal at the shareholders' meeting, convened for May 8, 2002 in first call and, eventually, for May 9, 2002 in second call, for the payment of dividends of Euros 0.08 for each ordinary share and Euros 0.0904 for each savings share.

Given the solid equity basis of the Company and taking into account the general conditions prevailing on the markets, the planned divestiture program was abandoned.

### **PIRELLI & C. LUXEMBOURG S.A. - LUXEMBOURG**

The company ended the year with a net income of Swiss francs 12.3 million compared to Swiss francs 174.7 million in the prior year.

The net income includes dividends of Swiss francs 62.6 million from Pirelli S.p.A. (Swiss francs 192.3 million last year) and financial expenses of Swiss francs 50.3 million (Swiss francs 43.4 million last year).

Last year, the net income included the gain of Swiss francs 23.3 million realized on the sale of Falck S.p.A. shares.

The company holds No. 527,813,101 Pirelli S.p.A. ordinary shares equal to 27.52 percent of voting capital and 26.31 percent of the entire share capital.

Debt went from Swiss francs 1,425.8 million to Swiss francs 1,517.7 million mainly as a result of the payment of dividends (Swiss francs 150 million).

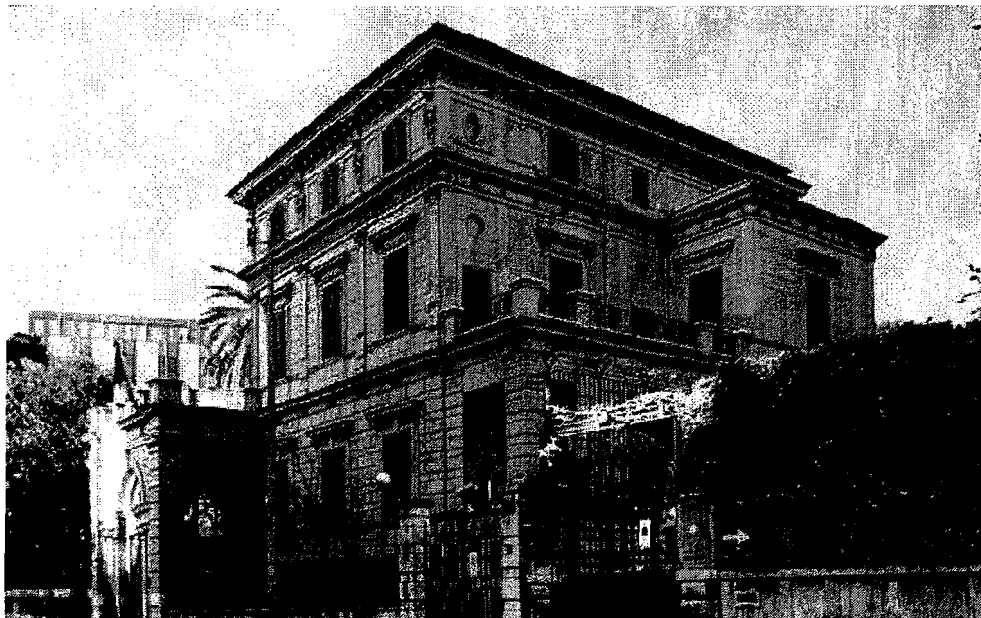
### **PIRELLI & C. REAL ESTATE S.p.A.**

Pirelli & C. Real Estate is the Pirelli & C. Group company which operates in both the sector of Real Estate Asset Management and non-performing loans (ensuring strategic management services and participating in qualified venture capital operations with minority stakes), and in the sector of Specialist Services (Residential Agency, Commercial Agency, Project Management, and Property & Facility Management) for the same projects and directly on behalf of third party clients.

Pirelli & C. Real Estate has developed the "management company" business model which, in its most successful form abroad, has evolved toward the "fund management company".

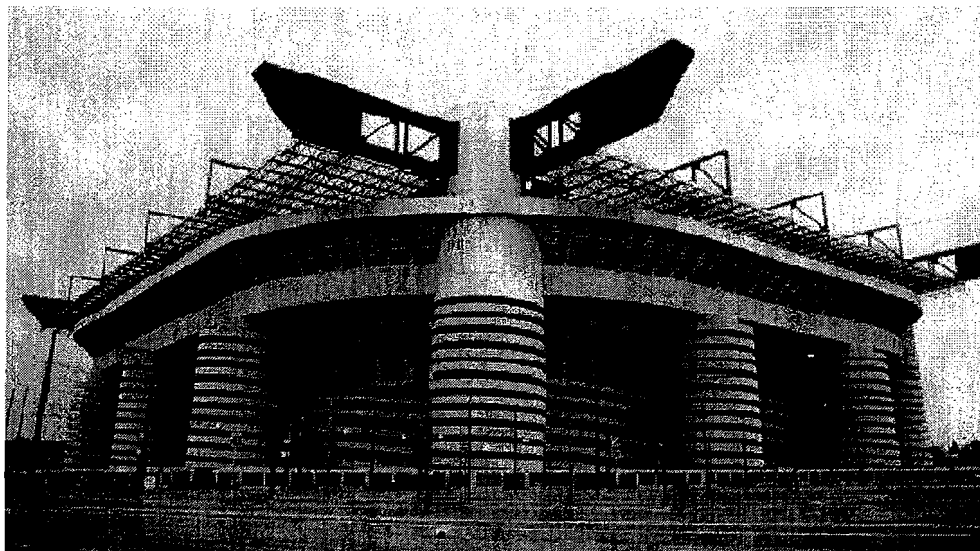
### **Major events during the year**

During the year, Pirelli & C. Real Estate group completed its corporate and organizational restructuring following the acquisitions made in 1999 and 2000 (Unim, the real estate assets of Compart, Parnasi, RCS and Risanamento Napoli, the Unim and Risanamento Napoli service businesses, Cagisa, Regus Italia, Agied) and commenced a new series of important transactions, listed below, that are aimed at reinforcing its role as a "management company".



Pirelli & C. Real Estate properties portfolio: the French Consulate in Rome.

- At the end of June 2001, a strategic accord was reached with the Anglo-Australian group Bovis Lend Lease for the development of Project Management services in the large buildings sector.
- Again in June 2001, Pirelli & C. Real Estate signed an agreement directed to the acquisition of the entire share capital of Altair FM S.p.A., a group operating in the Facility Management services sector, with the aim of strengthening its presence in this service sector. The goal is being pursued during the current year through the acquisition of other companies.
- In August 2001, together with Aedes Immobiliare S.p.A., a contract was signed with the Fininvest group for the acquisition of Edilnord 2000. The agreement calls for Pirelli & C. Real Estate's purchase of 100 percent of the share capital of the three service companies (Edilnord Progetti, Edilnord Gestioni and Servizi Immobiliari Edilnord) and the acquisition of qualified minority holdings, in addition to their management, in keeping with the usual business model, in the vehicle companies owning land parcels zoned for building in the Milan area. The service companies have been entrusted by the companies owing the land to carry out all the specialist services needed to develop the real estate properties.
- In October, together with the "The Morgan Stanley Real Estate Fund", a binding commitment was signed with Banca di Roma for the purchase of real estate property valued at some Euros 560 million. The manner of leveraging the value of this portfolio will be brought about by structuring the operation in a manner consistent with the usual business model of the Company.
- In November, through its investment in the Consorzio G6 Advisor, a new contract was signed with Società di Cartolarizzazione Immobili Pubblici S.r.l. through which the government intends to continue and step up the sale of its publicly-owned real estate properties.
- In December, a project was begun – the guidelines of which were later approved by the companies involved in the project – to optimize and integrate the assets and the service activities in the respective real estate areas of the Olivetti-Telecom group and the Pirelli Group.



The San Siro stadium managed by Pirelli & C. Real Estate Facility Management.

## Summary data

The following is a comparative summary of the key figures of the consolidated financial statements for the years ended December 31, 2001 and 2000.

In order to provide a more precise evaluation of the performance of the Company, the income statements for the years 2000 and 2001 are divided between "core" and recurring activities and "non-core" activities which include nonrecurring and/or activities not connected with the core business.

## Income statement data

(in millions of euros)						
	2001			2000		
	Total	Core activities	Non-core activities (*)	Total	Core activities	Non-core activities (*)
• Production value (1)	326.2	311.6	14.6	244.4	186.4	58.0
• Operating profit (loss)	44.3	49.8	(5.5)	34.5	34.5	0.0
Share of earnings (losses) of holdings	2.9	8.5	(5.6)	(0.2)	5.6	(5.8)
• Income (loss) from ordinary operations (2)	47.2	58.3	(11.1)	34.3	40.1	(5.8)
Financial income (expenses)	(3.3)	(4.4)	1.1	(42.2)	(7.0)	(35.2)
• Income before extraordinary items	43.9	53.9	(10.0)	(7.9)	33.1	(41.0)
Extraordinary items	163.8	(3.0)	166.8	206.2	(1.7)	207.9
• Income before taxes and minority interest	207.7	50.9	156.8	198.3	31.4	166.9
Income taxes	(46.3)	(17.4)	(28.9)	(46.3)	(11.2)	(35.1)
• Net income before minority interest	161.4	33.5	127.9	152.0	20.2	131.8
Minority interest	0.0	0.0	0.0	0.4	0.4	0.0
• Net income – attributable	161.4	33.5	127.9	152.4	20.6	131.8

(\*) The figures in the column "non-core activities" includes a series of non-typical and/or nonrecurring activities. They refer, in particular, to internet activities which are almost entirely geared to the development of an open portal; Eurostazioni, which is a financial investment currently in the process of being sold to the parent company Pirelli & C.; the effects of the securities portfolio, that have now been almost completely sold, taken over from Unim and the impact of the same Unim deal during the period in which the company was undergoing a restructuring and reorganization of its corporate operations; the construction of the Arcimboldi Theater.

(1) Production by value means the sum of net sales and the change in inventories.

(2) Result from ordinary operations means the sum of the operating profit (loss) and the share of the earnings (losses) of the companies accounted for using the equity method.

## Balance sheet data

(in millions of euros)		
	12/31/2001	12/31/2000
• Fixed assets	74.2	168.0
• Net working capital	249.4	324.3
– of which inventories	346.0	308.3
% to be sold	36%	49%
• Net invested capital	323.6	492.3
• Net financial position	141.6	364.5
• Net cash flows (compared to prior year)	222.9	(286.5)
• Shareholders' equity – attributable	131.0	74.0

Note: the net financial position does not include a loan for the development project of a building that has already been sold, for which a contract similar to project financing has been made.



### **Economic review**

The consolidated production value in 2001 is Euros 326 million, compared to Euros 244 million in 2000, with an increase of 34 percent. Net sales from the core activities of the company total Euros 312 million, with an increase of 67 percent compared to Euros 186 million recorded in the prior year. Such increase is due to the expansion of the Group's operations in the sectors of both asset management and services.

It should also be pointed out that Pirelli & C. Real Estate group's operations, in keeping with its business model, encompass the entire range of activities including the complete management of the investment and a qualified minority stake in the same investment. The production value that refers to the revenues from management activities is defined as the result obtained from the consolidation of the value of production also for the projects in which the Group holds minority interests.

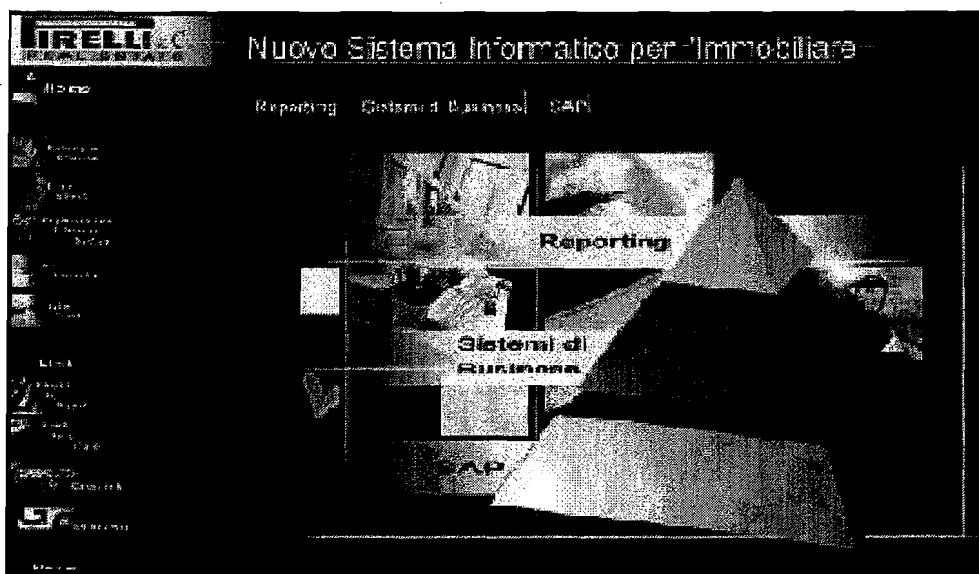
The operating profit is Euros 44 million against Euros 34 million in 2000, with an increase of 28 percent over the prior year. The operating income from core activities is Euros 50 million, compared to Euros 34 million in the prior year, with an increase of 44 percent.

The income (loss) from ordinary operations (that is, the sum of the operating profit (loss) and the share of the earnings (losses) of the companies accounted for using the equity method) is equal to Euros 47 million, compared to Euros 34 million in 2000 (+38 percent). In terms of core activities, the income from ordinary operations is Euros 58 million in 2001 against Euros 40 million in the prior year (+45 percent).

Net income attributable to the parent company is Euros 161 million, compared to Euros 152 million in 2000 (+6 percent). The net income from core activities is Euros 34 million, compared to Euros 21 million in the prior year, with an increase of 63 percent.

### **Balance sheet review**

Fixed assets, mainly consisting of securities and equity investments, total Euros 74 million, compared to Euros 168 million in 2000. This decrease can be ascribed to



Web page from Pirelli & C. Real Estate's new website.

the partial sale of the securities portfolio and the reclassification of the remaining balance to working capital in view of its future sale.

Net working capital is Euros 249 million, compared to Euros 324 million at December 31, 2000.

Net financial position totals Euros 142 million, Euros 76 million of which refer to the debt secured by the remaining securities portfolio, compared to Euros 364 million at December 31, 2000.

Shareholders' equity attributable to the parent company is Euros 131 million, compared to Euros 74 million at December 31, 2000.

### **Subsequent events and future outlook for 2002**

- In January 2002, the Company purchased, from the parent company Pirelli & C., the entire share capital of Pirelli & C. Credit Servicing, a company that manages non-performing loans, thus completing the range of services it offers.
- During the first few days of this month, the portfolio of remaining securities was sold for a net gain of over Euros 40 million, improving the net financial position by Euros 76 million.
- With the aim of developing the Facility Management area subsequent to the purchase of Altair in 2001, the plan was approved for the acquisition of Cam Energia e Servizi S.p.A. (subsidiary of Cam Finanziaria S.p.A.).
- Pirelli & C. Real Estate, together with other partners, is currently taking part in the bid for the purchase of the non-essential real estate property of the RAS group and a part of the property of the Toro group.

Lastly, as far as the outlook for the current year is concerned, it remains positive, partly as a result of the good trend in the real estate segment.

The Board of Directors, in its meeting of March 13, 2002, convened the Shareholders' Meeting for April 2, 2002. In the ordinary session, the shareholders' will be called to vote on the proposal to list the ordinary shares on the Mercato Telematico Azionario.

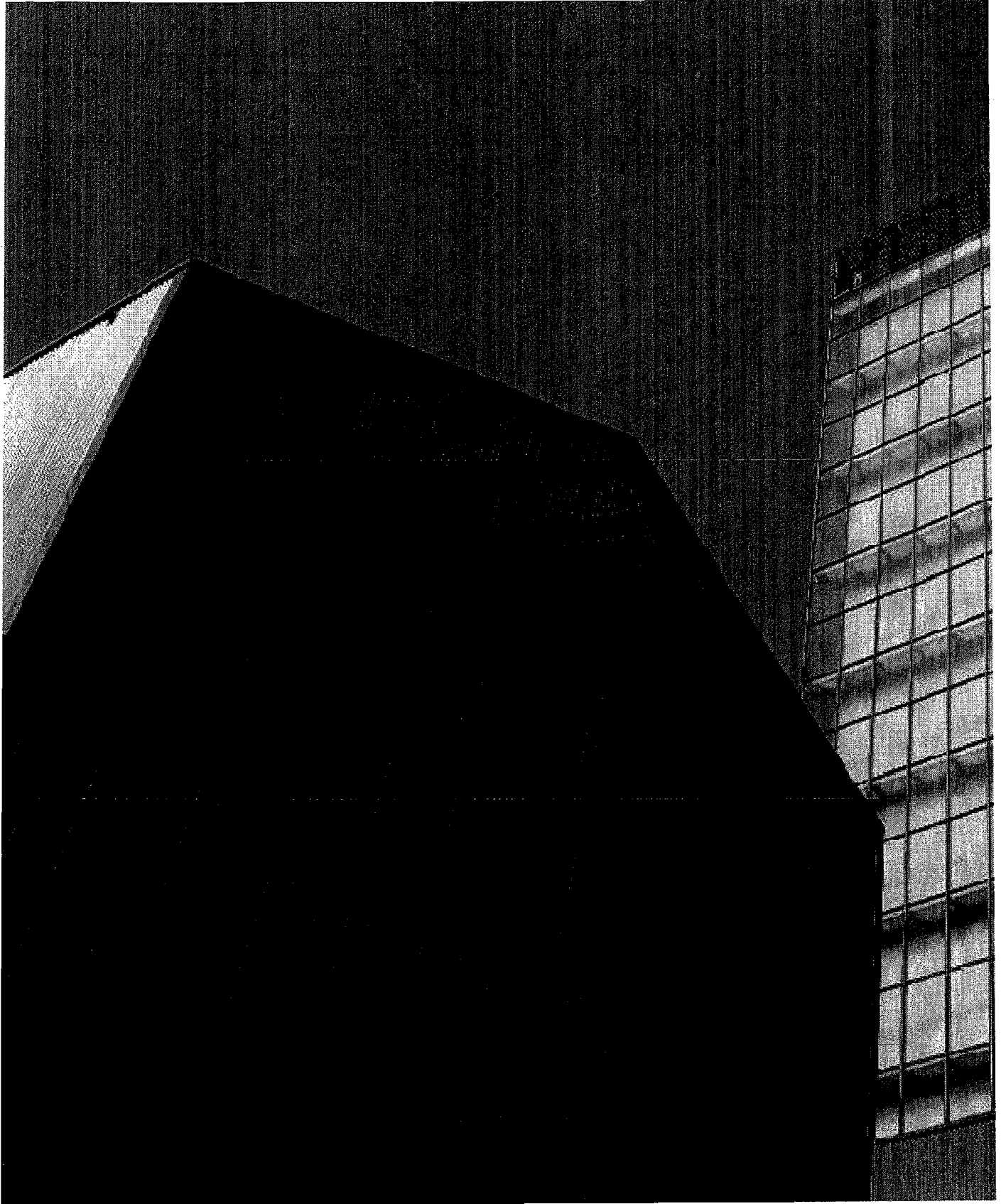
In the extraordinary session of the shareholders' meeting, also convened for April 2, the shareholders will vote to increase share capital for the stock's listing and introduce a stock option plan for the employees and directors of the Company aimed at promoting corporate allegiance in the medium to long term.

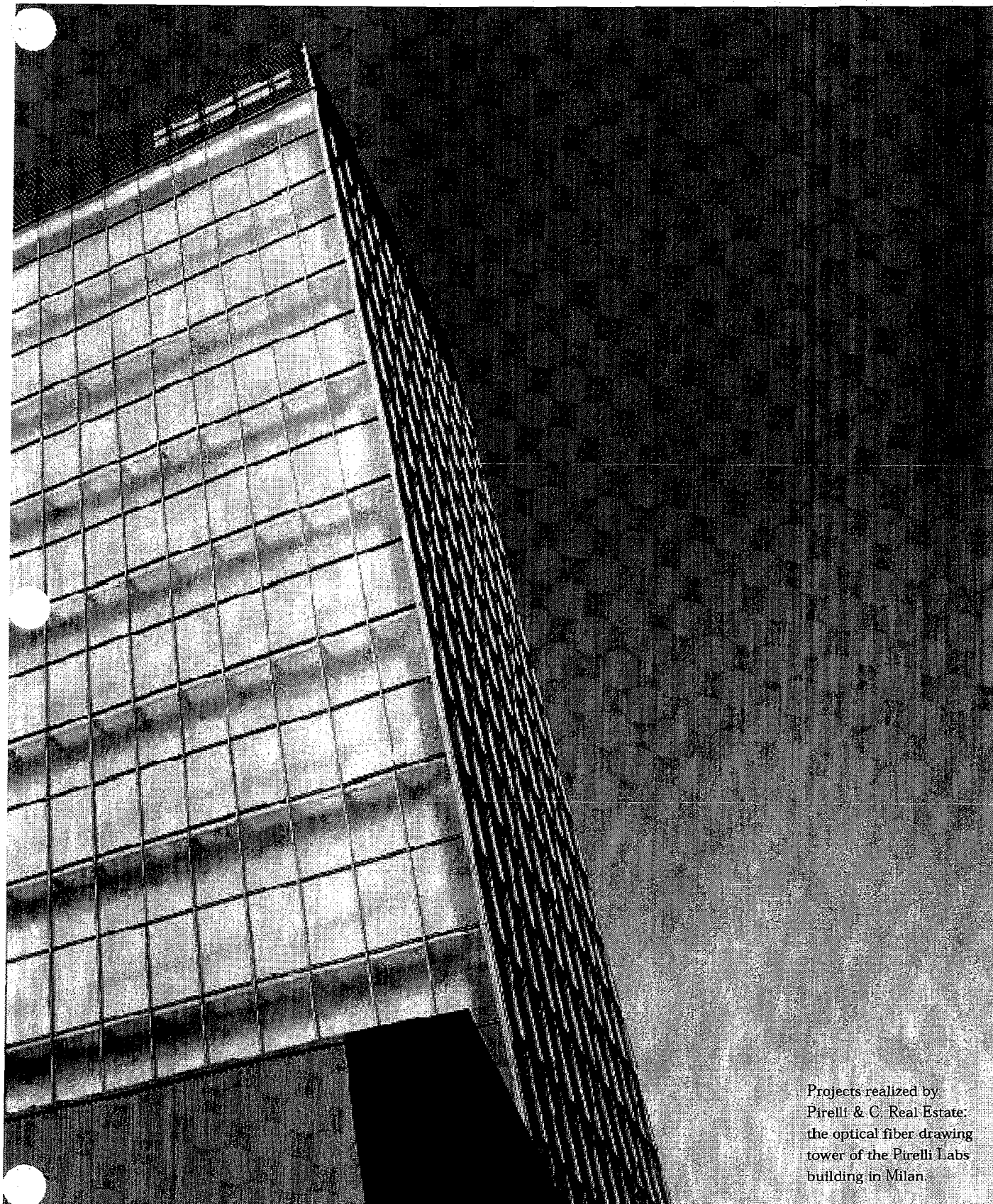
### **PIRELLI & C. AMBIENTE S.p.A.**

The company has continued to operate in the sectors of ecology and the recovery of energy from waste and the plan to abandon the co-generation sector has been completed through the sale of the investment in the subsidiary Pirelli Energie Deutschland GmbH; the total sales price was Euros 1.7 million, with a gain of Euros 0.5 million.

The purpose of the work being carried out in the sector for the recovery of energy from waste is that of designing innovative projects which produce income while at the same solving the problem of the disposal of waste in an economical and environmentally more suitable manner.

The consolidated result of the company for the year ended December 31, 2001, which is still in the start-up stage, shows a loss of Euros 0.1 million compared to a profit of Euros 2.5 million in the prior year.





Projects realized by  
Pirelli & C. Real Estate:  
the optical fiber drawing  
tower of the Pirelli Labs  
building in Milan.

## EQUITY INVESTMENTS HELD BY THE MANAGING PARTNERS

Pursuant to article 79 of Consob Regulation approved by resolution No. 11971 of May 14, 2000, the following information is provided as regards the investments held in the company Pirelli & C. and its subsidiaries by the Managing Partners, as well as spouses, not legally separated, and minor children, either directly or through subsidiaries, trustee companies or individual persons, resulting from the shareholders' register at December 31, 2001, from notices received or other information acquired from the same Managing Partners.

Name	Investment held in	No. of shares held at prior year-end	No. of shares purchased	No. of shares sold	No. of shares held at current year-end
Marco Tronchetti Provera	Pirelli & C.	1,870			1,870
	Pirelli & C. (Indirectly)	173,033,278	4,281,500	398,000	176,916,778
	Pirelli S.p.A. (indirectly)	27,513,000	3,000,000		30,513,000
Alberto Pirelli	Pirelli & C.	4,000			4,000
Carlo Buora	Pirelli & C.	3,000			3,000
	Pirelli S.p.A.	42,517			42,517
Carlo Alessandro Puri Negri	Pirelli & C.	10,000			10,000
	Pirelli & C. Real Estate S.p.A.	1,350	21,922	1,350	21,922
Luigi Orlando	Pirelli & C.	3,933			3,933
Luciano Gobbi	Pirelli S.p.A.		80,000	80,000	

(1) No statutory auditor holds investments in Pirelli & C. and its subsidiaries

No stock options have been assigned (as regards the stock option plans of the subsidiary Pirelli & C. Real Estate S.p.A. reference should be made to subsequent comments in this report, whereas for the stock option plans of the subsidiary Pirelli S.p.A., reference should be made to its annual report)

**PROFORMA CONSOLIDATED FINANCIAL DATA ASSUMING THE LINE-BY-LINE CONSOLIDATION OF OLIMPIA S.p.A. AND THE USE OF THE EQUITY METHOD TO VALUE ITS INVESTMENT IN OLIVETTI S.p.A.**

Proforma consolidated financial data at December 31, 2001 of Pirelli & C. A.p.A. is presented below, assuming the line-by-line consolidation of Olimpia S.p.A. and the use of the equity method to value Olimpia's investment in Olivetti S.p.A.

Proforma data of Pirelli & C. A.p.A. - December 2001

(in millions of euros)

	Proforma adjustments					
	Consolidated financial statements 2001 Pirelli & C. A.p.A. (1)	Elimination of Olimpia S.p.A. net result attributable to Pirelli & C. A.p.A.	Olimpia S.p.A. line-by-line consolidation	Consolidation adjustments and valuation of investment in Olivetti S.p.A. using the equity method	Total proforma adjustments	Proforma consolidated financial data 2001 Pirelli & C. A.p.A. (2)
<b>Condensed statement of income</b>						
Net sales	7,762					7,762
Operating profit	297		(1)		(1)	296
Financial income/(expenses)/Valuation adjustments to financial assets	(70)	19	(31)	(61)	(73)	(143)
Income (loss) before extraordinary items and income taxes	227	19	(32)	(61)	(74)	153
Extraordinary items	156					156
Income before income taxes	383	19	(32)	(61)	(74)	309
Income taxes	(189)					(189)
Net income	194	19	(32)	(61)	(74)	120
Net income - Pirelli & C. A.p.A.	125	8	(8)	(15)	(15)	110
<b>Reclassified balance sheet</b>						
Fixed assets	7,092	19	8,609	(3,109)	5,519	12,611
Net working capital	1,314		69		69	1,383
Total net invested capital	8,406	19	8,678	(3,109)	5,588	13,994
Financed by:						
Shareholders' equity	5,407	19	5,169	(3,109)	2,079	7,486
- of which shareholders' equity - Pirelli & C. A.p.A.	2,119	8	1,245	(1,249)	4	2,123
Provisions	970					970
Net financial (liquidity)/debt position	2,029		3,509		3,509	5,538

(1) Pirelli & C.A.p.A. consolidated financial statements (investment in Olimpia S.p.A. accounted for using the equity method)

(2) proforma data (line-by-line consolidation of Olimpia S.p.A. and equity method valuation of Olivetti S.p.A.)

The proforma consolidated financial data has been prepared using the statutory financial statements of Olimpia S.p.A. at December 31, 2001 and the consolidated financial statements of the Olivetti S.p.A. group at December 31, 2001, prepared by the Boards of Directors.

The principal proforma adjustments are as follows:

- in the column "Elimination of Olimpia S.p.A. net result attributable to Pirelli & C. A.p.A.": elimination of the statement of income and balance sheet effects of valuing Olimpia S.p.A. by the equity method in the consolidated financial statements of Pirelli & C. A.p.A. at December 31, 2001;
- in the column "Olimpia S.p.A. line-by-line consolidation": inclusion of the assets, liabilities, revenues and costs resulting from the financial statements at December 31, 2001 of Olimpia S.p.A., attributing the share of net equity and results of operations to the minority interest;
- in the column "Consolidation adjustments and valuation of investment in Olivetti S.p.A. using the equity method":
  - inclusion of the effect of accounting for Olivetti S.p.A. using the equity method, giving rise to a valuation adjustment of Euros 61 million, of which Euros 55 million relate to the amortization of implicit goodwill for three months out of a total twenty-year period, and Euros 6 million to Olimpia S.p.A.'s share of the last quarter 2001 earnings of the Olivetti group, net of the effects that can be reasonably attributed to the pre-acquisition period;
  - elimination of the carrying value of the investment in Olimpia S.p.A. against the underlying share of net equity, recognizing a difference on consolidation of Euros 50 million.

A comparison of shareholders' equity and net debt between the consolidated financial statements at December 31, 2001 of Pirelli & C. A.p.A. and the proforma consolidated financial data at December 31, 2001 of Pirelli & C. A.p.A. is presented below, assuming:

- the line-by-line consolidation of Olimpia S.p.A. and the valuation of the investment in Olivetti S.p.A. using the equity method;
- the line-by-line consolidation of both Olimpia S.p.A. and the Olivetti S.p.A. group.

Proforma Pirelli & C. A.p.A. equity and financial summary data - December 2001

(in millions of euros)

	Shareholders' equity	Net debt	Net debt/ Shareholders' equity	Shareholders' equity- Pirelli & C. A.p.A.
Pirelli & C.A.p.A. Group: consolidated financial statements at 12/31/2001	5,407	2,029	0.38	2,119
Pirelli & C.A.p.A. Group: proforma consolidated data with Olimpia S.p.A. consolidated line-by-line and Olivetti S.p.A. valued using the equity method	7,486	5,538	0.74	2,123
Pirelli & C.A.p.A. Group: proforma consolidated data with Olimpia S.p.A. and the Olivetti group consolidated line-by-line	30,182	43,900	1.45	2,123



## STOCK OPTIONS PLANS

There are two stock options plans, both introduced by the subsidiary Pirelli & C. Real Estate S.p.A.; the first in 2000 (hereinafter the "Plan 2000") and the second in 2001 (hereinafter the "Plan 2001").

### PLAN 2000

**Features of the plan:** assignment of option rights, by Pirelli & C. A.p.A., for the purchase of No. 25,713 Pirelli & C. Real Estate shares, already issued, and the simultaneous commitment by Pirelli & C. to repurchase the shares between January 1, 2004 and December 31, 2005, at a price determined on the basis of the "fair value" of the shares, according to the provisions of the Tax Code, resulting from a specific appraisal. Pirelli & C., however, will have the right to repurchase the above shares from January 1, 2004 to December 31, 2004 or, as early as January 1, 2002, whenever – in light of a re-examination of the current incentive and loyalty systems – Pirelli & C. Real Estate decides to institute a program that constantly involves the employees and management in the creation of economic value, in the medium term, of Pirelli & C. Real Estate itself.

Lastly, the right of the beneficiaries to sell the shares derived from exercising the options to Pirelli & C. A.p.A. and the right of Pirelli & C. to repurchase the same shares from the latter, will be null and void if Pirelli & C. Real Estate is listed on the stock market.

**Assignees:** 20 employees of Pirelli & C. Real Estate or its subsidiaries in view of their contribution to the positive outcome of the UNIM deal.

**Purchase price per share:** Lire 2,279,000.

**Period for exercising options:** from February 16, 2001 to June 30, 2001.

**Number of shares purchased between February 16, 2001 and June 30, 2001:** all the No. 25,713 shares offered for sale.

**Payment of the price of the shares purchased:** payment will take place by compensation with the amount that will be paid to the assignee at the time the shares sold are repurchased by Pirelli & C. A.p.A., and will be equal to Lire 2,279,000 per share (now Euros 1,177.01) plus annual interest calculated at the official rate in force at the end of each year. This form of financing was not used by Mr Carlo Alessandro Puri Negri who purchased No. 21,922 shares, also in view of his position as a managing partner of Pirelli & C. A.p.A..

### PLAN 2001

**Features of the plan:** assignment of option rights, by Pirelli & C. A.p.A., for the purchase of No. 6,925 Pirelli & C. Real Estate shares, already issued, and the simultaneous commitment by Pirelli & C. to repurchase the shares between January 1, 2004 and December 31, 2004, at a price determined on the basis of the "fair value" of the shares, according to the provisions of the Tax Code, resulting from a specific appraisal. Pirelli & C., however, will have the right to repurchase the above

shares from January 1, 2004 to December 31, 2004 or, as early as June 1, 2002, whenever – in light of a re-examination of the current incentive and loyalty systems – Pirelli & C. Real Estate decides to institute a program that constantly involves the employees and management in the creation of economic value, in the medium term, of Pirelli & C. Real Estate itself.

Lastly, the right of the beneficiaries to sell the shares derived from exercising the options to Pirelli & C. A.p.A. and the right of Pirelli & C. to repurchase the same shares from the latter, will be null and void if Pirelli & C. Real Estate is listed on the stock market.

**Assignees:** 22 employees of Pirelli & C. Real Estate or its subsidiaries, in view of the benefit of involving all those who became part of the Group in 2000 and were not able to take advantage of the previous plans and the need to equalize the salaries of some managers as well as for the purpose of aiming to achieve a greater success in the Edilnord deal and a more profitable integration of the relative assets in the organizational structure of the Group.

**Purchase price per share:** Euros 1,862.07.

**Period for exercising options:** from June 1, 2002 to December 31, 2002.

Payment of the price of the shares purchased: payment will take place by compensation with the amount that will be paid to the assignee at the time the shares sold are repurchased by Pirelli & C. A.p.A., and will be equal to Euros 1,862.07 per share plus annual interest calculated at the official discount rate in force at the end of each year.

In total, the Pirelli & C. Real Estate shares sold to employees of the Group amount to 7.5 percent of share capital while the optioned shares equal 2.02 percent of the same.

The stock option plan begun in 1999 was completed in 2001. The plan consisted of the bonus assignment of 7,115 shares of Milano Centrale S.p.A. (now Pirelli & C. Real Estate S.p.A.) to 34 employees.

In fact, on November 27, 2001, all the above shares were sold by the beneficiaries to Pirelli & C. A.p.A. (as envisaged by the originally agreed plan) for a total amount of some Lire 20,159 million (unit price of Lire 2,833,295).

Lastly, Pirelli & C. assigned the Managing Director-General Manager of the subsidiary Pirelli & C. Ambiente S.p.A., Dott. Nicolò Dubini, an option for the purchase of 183,600 shares of this company (equal to 6 percent of share capital) at a price of Euros 1.15 per share, based on an appraisal carried out for this purpose.

The option can be exercised beginning from the time the financial statements at December 31, 2003 of Pirelli & C. Ambiente S.p.A. are approved and the shares from the option can be sold by the beneficiary to Pirelli & C. within two years from the date the option was exercised at a price that will take into account the revaluation of the net assets of the company during the period.

# CORPORATE GOVERNANCE

## INTRODUCTION

On November 16, 1999, the Company informed the market that it had adopted the "Code of Self-discipline of listed companies" (hereinafter "Code"), recommended by Borsa Italiana S.p.A..

In conformity with the Instructions for the Regulations of the markets organized and managed by Borsa Italiana, here below, the Company wishes to represent its corporate governance system which has gradually come to be formed over time.

This year, too, an exact application of all the recommendations contained in the Code is difficult because of the particular type of Company (which has always been a limited partnership with share capital) and the salient feature which distinguishes the figure of the managing partner.

### 1. Board of Managing Partners

#### 1.1 The role of the Board of Managing Partners

Pursuant to the by-laws (art. 10), the Board is empowered with the management of the Company and, for this purpose, is invested with the fullest powers for finance and administration, except those, which according to the by-laws or by law, are reserved for the shareholders' meetings.

The Board, in fact, exercises its powers in conformity with point 1.2 of the Code, that is:

- examines the corporate, industrial and financial plans of the company and the corporate structure of the Group which the Company heads;
- assigns and revokes the delegation of powers to the managing partners, establishing the limits and manner of exercising such powers;
- establishes, after examining the proposals of the specific remuneration committee and after having consulted the Board of Statutory Auditors, the fee to be paid to the managing partners and those who hold specific posts;
- monitors the general performance of operations, with special attention being paid to the conflicts of interest, taking into account, in particular, the information received from the executive managing partners and the audit committee, as well as periodically comparing the results with the budgets;
- examines and approves transactions that have a significant economic, financial or equity impact, with particular reference to related party transactions;
- generally, at the board meetings, held at least quarterly, the Board of Statutory Auditors is kept informed of the activities conducted and the most important transactions entered into, also by the subsidiaries;
- verifies the adequacy of the general organizational and administrative structure of the company and group as organized by the managing directors;
- keeps the shareholders informed at the shareholders' meetings.

#### 1.2 The appointment of managing partners

In conformity with point 7 of the Code, and although not included in the by-laws, from now on, as a normal rule, the proposals for the post of managing partner will be accompanied by exhaustive disclosure concerning the personnel and professional characteristics of the candidates and will be deposited at the

corporate offices, if possible, at least ten days prior to the expected date of the shareholders' meeting.

The Board of Managing Partners did not deem it necessary to form an internal committee to propose candidates for the post of managing partner, since, at present, the assumptions for doing so as contemplated by the Code do not apply to the company and, particularly because no special difficulties are envisaged in proposing candidates, in view of the actual shareholder base.

Lastly, the by-laws do not contemplate the system of voting by lists for the nomination of the managing partners.

### 1.3 The composition of the Board of Managing Partners

The Board of Managing Partners is composed of the following:

Dott. Marco Tronchetti Provera

Dott. Alberto Pirelli

Dott. Carlo Buora

Dott. Luigi Orlando

Carlo Alessandro Puri Negri

Therefore, the Board is composed of five managing partners, of whom four are executive managing directors. Executive managing partners is defined, as according to point 2.1 of the Code, – as the Chairman Dott. Marco Tronchetti Provera, entrusted with delegated powers, the Deputy Chairman Dott. Alberto Pirelli (who carries out management functions in the subsidiary Pirelli Cavi e Sistemi –Energy), Dott. Carlo Buora, the Managing Director and General Manager of Finance and Administration in the subsidiary Pirelli S.p.A., and Carlo Alessandro Puri Negri, the General Manager of the Company and Deputy Chairman-Managing Director of the subsidiary Pirelli & C. Real Estate S.p.A. and Deputy Chairman, entrusted with delegated powers, in Pirelli & C. Ambiente S.p.A..

The Code, at point 3, provides a definition of “independent directors”, which, in view of, but especially on account of the particular features which distinguish the managing partners, none of them can be qualified as such.

Given the type of company, an expiration date for term of office for the managing partners has not been established.

### 1.4 Meeting of the Board

A Chairman, and if necessary, one or more Deputy Chairmen shall be appointed from amongst the members of the Board.

In the event of the Chairman being absent, the chair shall be taken by the senior in age of the Deputy Chairmen present.

The Board shall appoint a Secretary who need not necessarily be a member of the Board.

The Board shall meet at the invitation of the Chairman or, if appointed, by a Deputy Chairman or a Managing Director, at the registered office of the Company or in any other place just so long as it is in Italy, or whenever a meeting has been requested by two managing partners or by at least two standing statutory auditors.

To this end, the by-laws do not establish a minimum number of meetings; it is nevertheless the practice to hold at least five meetings a year (to examine the

preliminary data at December 31, the draft financial statements and the quarterly and semiannual reports).

Meetings of the Board may be held through an audiovisual connection.

In this case the following must be guaranteed:

- a) identification of all the participants at each point in the connection;
- b) the possibility for each participant to intervene, to orally put forward same's own opinion, to view, receive and transmit all documentation, as well as the contextuality of considerations and resolutions;
- c) meetings of the Board of Managing Partners are considered to be held in the place in which the Chairman and the Secretary must be simultaneously.

Board meetings shall be convened by means of a letter, telegram, telex or fax sent to the address of each managing partner and each statutory auditor, at least five days before (or in urgent cases at least six hours before) the day set for the meeting.

The presence of at least half the members plus one is necessary for the resolutions of the Board to be deemed valid, and the favorable vote of the majority of those present is required. Nevertheless, for the appointment of the Chairman and one or more Deputy Chairman, in addition to the appointment of the Managing Director and the granting of powers by the Board of Managing Partners to one or more of its members, a favorable vote cast by all the members is required.

The resolutions of the Board, even when passed by meetings held through videoconference, are recorded in a special book signed by the Chairman and the Secretary.

In 2001, six Board meetings were held; total attendance by the managing partners was close to 100 percent (a director was absent at two meetings).

#### 1.5 The emoluments of the managing partners

The emoluments of the Board of Managing Partners, besides the reimbursement for expenses in connection with their duties, consist of an annual fee established by the shareholders' meeting.

The emoluments of the managing partners invested with specific responsibilities are established by the provisions of art. 2389, paragraph 2 of the Italian Civil Code.

The Board has internally set up the "Remuneration Committee", establishing that:

- a) as regards its functions:
  - proposals are presented to the Board for the remuneration of the managing partners having specific responsibilities and the remuneration of the top management of the company;
  - preliminary examinations are made of the proposals for stock option plans;
- b) as regards its composition:
  - in general, it is composed of at least three managing partners who shall appoint the Chairman and a Secretary, who need not necessarily be a member of the Board;
  - the Board of Statutory Auditors and the Chairman of the Board of Managing Partners shall also attend the Board meetings;

- the managing partners invested with specific responsibilities shall absent themselves from the meeting when their remuneration is being discussed and also in the event of discussions which interest them personally;
- c) as to its working format:
  - meetings are held at any time the Chairman deems it necessary or a request has been made by another member;
  - for convening meetings and for the validity of its constitution and the resolutions, the same rules apply as those stated in the by-laws for the meetings of the Board of Managing Partners.

The "Remuneration Committee" is currently composed of the managing partners Dott. Luigi Orlando, who is Chairman, Dott. Alberto Pirelli and Dott. Carlo Buora; three meetings were held in 2001.

## **2. Granting of power. Information provided to the Board of Managing Partners**

The Board of Managing Partners conferred powers, to the Chairman Dott. Marco Tronchetti Provera and the Deputy Chairman Dott. Alberto Pirelli, necessary to carry out all the acts pertaining to corporate activity, to be exercised with single signature powers, with the exception of the power to issue guarantees for obligations of the Company and the subsidiaries in excess of single amounts of Euros 25 million or guarantees in the interest of third parties for obligations in excess of single amounts of Euros 10 million.

Specific and more limited powers were conferred to the General Manager and the executives to be used to carry out their specific responsibilities.

Also during 2001, as in the past, the above managing partners (as well as those to whom specific powers were granted) only used the powers conferred to them to carry out the normal operations of the company – of which the other managing partners of the company were periodically informed –, waiving such powers in the case of significant transactions in terms of quality or value from an economic and financial standpoint, and submitting them to the same Board of Managing Partners. In accordance with art. 10 of the by-laws, the Board of Managing Partners and the Board of Statutory Auditors – on a quarterly basis – have been kept informed about the activities and any important economic, financial or equity transactions carried out by the company or the subsidiaries as well as transactions involving any potential conflicts of interest, providing the necessary elements to comprehend the transactions themselves.

Finally, the Chairman of the Board, also using information provided by the responsible internal functions, informs the managing partners and, if necessary, discusses any major new legislation and regulations that regard the company and the corporate boards.

## **3. Internal control**

Reporting directly to the Chairman of Pirelli & C.A.p.A., also with regard to the activities carried out in the subsidiaries, is the Auditing Function (not involved in financial operating activities and in the preparation of the financial statements and period statements) which has the main responsibility for verifying that the system of internal control of both the Pirelli & C. Group and

the Group headed by the subsidiary Pirelli S.p.A. is functioning and is adequate in terms of effectiveness and efficiency. To this end, it should be pointed out that in 2001, activities continued to spread and develop the methodology for managing operating risk within all the major units of the Group.

The relative procedures for application have been issued and included in the administrative procedures manual; this has made it possible to further improve the internal control system in general.

As regards Legislative Decree No. 231/2001, and while awaiting publication of the guidelines by Confindustria for the development of the Organization Models for management and control, approved on February 6, 2001, Management has taken steps to improve the existing internal regulations and extend the spread of the same, also through meetings with management.

The Board of Managing Partners has internally set up an "Audit Committee", establishing that:

a) as regards its functions:

- advisory and proposal functions shall be provided to the Board of Managing Partners and, in particular:
  - evaluate the adequacy of the internal control system;
  - evaluate the work plan prepared by those in charge of internal control and receive their reports periodically;
  - evaluate the proposals formulated by the independent audit firms in order to be appointed as auditors as well as the audit work plan and the results expressed in the report and letter of recommendations;
  - at least every six months, at the time of the approval of the annual financial statements and six-month financial statements, the Board shall be informed about the work carried out and the adequacy of the system of internal control;
  - perform the additional tasks assigned by the Board of Managing Partners, particularly with regard to relations with the independent audit firm;

b) as regards its composition:

- it is composed of at least three managing partners who shall appoint the Chairman and a Secretary, who need not necessarily be a member of the Board;
- the Board of Statutory Auditors and the Chairman of the Board of Managing Partners shall also attend the Board meetings, as well as, by invitation, the person in charge of the Internal Audit function;

c) as regards its working format:

- meetings are held at least twice a year, before the Board meetings for the approval of the annual financial statements and the six-month financial statements, or at any time the Chairman deems it necessary or a request has been made by another member or a managing director;
- for convening meetings and for the validity of its constitution and the resolutions, the same rules apply as those stated in the by-laws for the meetings of the Board of Managing Partners.

The "Audit Committee" is currently composed of the managing partners Dott.

Luigi Orlando, who is Chairman, Dott. Carlo Buora and Mr. Carlo Alessandro Puri Negri.

One meeting was held in 2001 (another was held together with a Board meeting).

Again in 2001, the Internal Audit function reported on its work to the Chairman at least monthly, once to the Audit Committee, once directly to the Board of Managing Partners and once to the Board of Statutory Auditors.

The Audit Committee and the Board of Directors, also on the basis of indications received from the Board of Statutory Auditors, have maintained that the system of internal control is adequate.

#### **4. The Board of Statutory Auditors**

It is felt that the entire article 15 of the by-laws should be reported herein, as follows:

"The Board of Statutory Auditors is composed of three standing statutory auditors and two alternate statutory auditors who must hold the requisites required by the existing laws and also by regulations; to this end, account will be taken that the matters and sectors of business strictly inherent to those of the Company are those indicated in the corporate business purpose with particular reference to companies or entities operating in the financial, industrial, banking, insurance, real estate and services sectors in general.

The ordinary General Meeting shall appoint the Board of Statutory Auditors and determine the fees thereof. The minority shareholders shall appoint one standing statutory auditor and one alternate statutory auditor.

With the exception of the provisions of the second last paragraph of the present article, the appointment of the Board of Statutory Auditors is made on the grounds of lists put forward by the shareholders in which candidates are listed under progressive numbers.

Each list contains a number of candidates which does not exceed the number of members to be appointed, All shareholders who, alone or together with other shareholders, represent at least 2 percent of the shares with voting rights in the ordinary general meeting, have the right to put forward a list.

The lists of candidates, undersigned by the parties presenting them, must be filed at the Company's registered office at least ten days before the day fixed for the meeting in first call. A description of the professional résumé of the individuals standing for election must be enclosed with the lists together with statements whereby the single candidates accept the nomination and attest, under their own personal responsibility, to the non-existence of any reasons for ineligibility or incompatibility as well as to the existence of the requisites prescribed by law or by the articles for the position.

Any lists put forward which do not comply with the aforesaid provisions shall be considered not to have been put forward.

Each candidate may be included on only one list, under penalty of ineligibility.

Likewise, any individuals who are not in possession of the requisites established by the applicable rules and regulations or who already hold the position of statutory auditor in more than five companies with stocks listed on official Italian markets, with the exception of the subsidiaries of Pirelli e C..

Each individual with voting rights may vote for only one list.



The election of the members of the Board of Statutory Auditors is performed as follows: two standing statutory members and one alternate member are taken from the list which has obtained the highest number of votes, in the progressive order in which same are listed thereon; the remaining statutory member and the other alternate member are taken from the list which has obtained the highest number of votes from the meeting after the first list, again in the progressive order in which same are listed thereon; in the event of several lists obtaining the same number of votes, a new run-off vote between the said lists will be cast by all the shareholders present at the meeting, and the candidates on the list which obtains the simple majority of the votes will be appointed.

The Chairman of the Board of Statutory Auditors shall be the statutory member indicated as the first candidate on the list which obtained the highest number of votes.

In case of death, waiver or resignation of a Statutory Auditor, the deputy belonging to the same list as the resigned statutory auditor all take the place of same. In the event of substitution of the Chairman of the Board of Statutory Auditors, the chair shall be taken by the other statutory member on the list to which the resigning chairman belonged; if it is not possible to perform substitutions and replacements as set out hereinabove, then a meeting shall be convened to integrate and complete the Board of Statutory Auditors and which shall pass resolutions with a relative majority.

When the meeting has to make provisions, pursuant to the terms of the foregoing paragraph or to the terms of law, for the appointment of statutory auditors and/or alternates needed to complete the Board of Statutory Auditors, it shall proceed as follows: if statutory auditors appointed from the majority list have to be replaced, then the appointment is made with a relative majority vote without being tied to any list; if on the other hand statutory auditors appointed by the minority shareholders have to be replaced, the meeting shall replace same with a relative majority vote choosing names where possible from amongst the candidates indicated on the list on which the statutory auditor to be substituted appeared.

If only one single list has been put forward, then the meeting shall cast its vote regards same; if the list obtains a relative majority, then the first three candidates on the list in progressive order shall be appointed as the standing statutory auditors, and the fourth and fifth candidate shall be appointed as alternate statutory auditors; Chairman of the Board of Statutory Auditors shall be the person indicated at the top of the list put forward; in case of death, waiver or resignation of a statutory auditor, and in the event of substitution of the Chairman of the Board of Statutory Auditors, same shall be replaced respectively by an alternate statutory auditor and a standing statutory auditor in the order arising from the progressive numbering of the said list.

Failing any lists, the Board of Statutory Auditors and its Chairman shall be appointed by the general meeting with the majorities prescribed by law.

Resigning statutory auditors may be re-appointed".

## **5. The shareholders' meetings**

It is the Company's consistent policy to use the shareholders' meetings to provide the shareholders with information about the company and its prospects;

this obviously is complied with, in accordance with the rules governing price sensitive issues and, therefore, where necessary, by informing the market of such information.

It is also the Company's policy to call attention to the location, date and time of the meeting in order to facilitate the participation of the shareholders at the meetings; furthermore, where possible, all the managing partners and statutory auditors try to attend the shareholders' meetings, in particular the directors who, because of the posts they hold, can make a useful contribution to the discussion.

Lastly, the Board of Managing Partners makes known that it does not feel – at the present time – that the Company has a need to establish rules for conducting shareholders' meetings, deeming that what is envisaged in the by-laws on this matter is sufficient for the orderly and proper functioning of the shareholders' meetings.

**6. Relations with investors and the other shareholders**

The Company has always actively tried to establish a dialogue with its shareholders and institutional investors based on an understanding of the reciprocal roles, and also by planning periodical meetings with members of the Italian and international financial community.

Moreover, as early as March 1999, an Investor Relations office has been set up in the Group, entrusted to Dott.ssa Silvia Barettoni.

**7. Treatment of confidential information**

The management of confidential information, with special reference to price sensitive information, is under the direct responsibility of the Chairman of the Board of Managing Partners.

Outside communications regarding documents and information about the Company and its subsidiaries are conducted – always in agreement with the Chairman – by the Secretary to the Board and the Corporate Secretary for communications to the authorities and the shareholders, by the External Relations function for communications to the press and the Investor Relations function for communications directed to institutional investors.

The Chairman and those in charge of the aforementioned functions are invariably able to join together to issue any urgent external communications.

## THE PARENT COMPANY: PIRELLI & C.

The financial statements at December 31, 2001 of Pirelli & C. show a net income of Euros 148.4 million compared to a net income of Euros 259.7 million in the prior year.

The condensed statement of income is as follows:

(in thousands of euros)			
STATEMENT OF INCOME	2001	2000	Change
Financial income and expenses	11,427	23,575	(12,148)
Dividends and tax credits	228,389	284,802	(56,413)
Gains on sales of securities	163	54	109
Value adjustments to financial assets	(998)	(4,656)	3,658
Depreciation and amortization	(1,711)	(1,701)	(10)
Other operating income and expenses	(7,319)	(5,979)	(1,340)
<b>Income from ordinary operations</b>			
<b>before income taxes</b>	<b>229,951</b>	<b>296,095</b>	<b>(66,144)</b>
Extraordinary items	(3,455)	56,784	(60,239)
Income taxes	(78,110)	(93,204)	15,094
<b>Net income</b>	<b>148,386</b>	<b>259,675</b>	<b>(111,289)</b>

An analysis of the main components of the statement of income shows that financial income, net decreased on account of average interest rates, that were lower than those of the prior year, and a lower average net liquidity position.

Dividends, including tax credits of Euros 79.7 million, are equal to Euros 228.4 million compared to Euros 284.8 million in the prior year. The amounts mainly includes dividends (including tax credits) from the subsidiaries Pirelli & C. Real Estate S.p.A. (Euros 190.5 million), Pirelli & C. Luxembourg S.A. (Euros 7 million) and Pirelli S.p.A. (Euros 27.2 million).

Gains on sales of securities refer to the gains realized on the sale of "Assicurazioni Generali S.p.A. shares reserved for holders of warrants".

Other operating expenses, net of income from the recovery of expenses for services rendered to Group companies and other income, went from Euros 5.9 million to Euros 7.3 million.

Extraordinary items, net mainly include expenses connected with the extraordinary renovation of the buildings used and not owned and fees connected with extraordinary transactions.

The condensed balance sheet is as follows:

(in thousands of euros)			
<b>BALANCE SHEET</b>	<b>12/31/2001</b>	<b>12/31/2000</b>	<b>Change</b>
Property, plant and equipment and intangible assets	2,095	3,506	(1,411)
Financial assets			
Investments	859,263	482,571	376,692
Other securities	2,582	19,109	(16,527)
Treasury shares	4,678	4,678	-
Financial receivables	988,025	777,318	210,707
Current financial assets	8,335	8,396	(61)
Other assets	62,611	176,224	(113,613)
	<b>1,927,589</b>	<b>1,471,802</b>	<b>455,787</b>
Shareholders' equity	1,194,513	1,155,147	39,366
Provisions	13,334	7,372	5,962
Financial payables	696,248	265,334	430,914
Other liabilities	23,494	43,949	(20,455)
	<b>1,927,589</b>	<b>1,471,802</b>	<b>455,787</b>

Investments increased by Euros 376.7 million due mainly to the purchase of No. 100,156,279 Pirelli S.p.A. ordinary shares (Euros 300.4 million), No. 8,500,000 Pirelli S.p.A. savings shares (Euros 26 million), in addition to the purchase of Consortium S.r.l. shares (Euros 19.5 million) and the capital increase by Tredicimarzo S.r.l. (Euros 14 million).

After the purchases of Pirelli S.p.A. shares, the average carrying value per ordinary share is equal to Euros 2.45.

A complete analysis is provided in the notes.

Shareholders' equity at December 31, 2001 is equal to Euros 1,194.5 million compared to Euros 1,155.1 million at December 31, 2000.

The increase is the result of the net income for the year (Euros 148.4 million), net of dividends paid (Euros 128.9 million) and the partial conversion of 2.5% 1998-2003 bonds (Euros 19.9 million).

The net financial position shows a liquidity balance of Euros 300.1 million at December 31, 2001 compared to Euros 520.4 million at the end of the prior year.

(in thousands of euros)			
	<b>12/31/2001</b>	<b>12/31/2000</b>	<b>Change</b>
Financial receivables	988,025	777,318	210,707
Current financial assets	8,335	8,396	(61)
Financial payables	(696,248)	(265,334)	(430,914)
	<b>300,112</b>	<b>520,380</b>	<b>(220,268)</b>

The change in the net financial position derives from the following movements:

	(in thousands of euros)
	<b>12/31/2001</b>
Share capital increases and reserves	19,886
Cash flows generated by operating activities	266,745
Financial investments, net	(377,992)
Dividends paid to shareholders	(128,907)
	<b>(220,268)</b>

Other assets mainly consist of receivables from the tax authorities (Euros 32.7 million) and dividends receivable (Euros 24.4 million).

Other liabilities mainly comprise of payables for the payment of the unified VAT return filed for the entire Group, with a contra-entry to other assets (Euros 16.6 million), taxes payable, social security agencies payable and withholding taxes payable (Euros 1 million).

## APPOINTMENT OF THE BOARD OF STATUTORY AUDITORS

The Board of Statutory Auditors was appointed by the shareholders' meeting of May 25, 1999 and its term of office is thus about to end.

The shareholders' meeting is thus called to appoint three standing auditors and two alternate auditors, as well as the Chairman of the Board of Statutory Auditors, and establish the remuneration for the standing auditors.

The Board of Statutory Auditors is appointed in accordance with article 15 of the by-laws which is reported below.

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### Article 15 of the by-laws – Board of Statutory Auditors

The Board of Statutory Auditors is composed of three standing statutory auditors and two alternate statutory auditors who must hold the requisites required by the existing laws and also by regulations; to this end, account will be taken that the matters and sectors of business strictly inherent to those of the Company are those indicated in the corporate business purpose\* with particular reference to companies or entities operating in the financial, industrial, banking, insurance, real estate and services sectors in general.

The ordinary General Meeting shall appoint the Board of Statutory Auditors and determine the fees thereof. The minority shareholders shall appoint one standing statutory auditor and one alternate statutory auditor.

With the exception of the provisions of the second last paragraph of the present article, the appointment of the Board of Statutory Auditors is made on the grounds of lists put forward by the shareholders in which candidates are listed under progressive numbers.

Each list contains a number of candidates which does not exceed the number of members to be appointed. All shareholders who, alone or together with other shareholders, represent at least 2 percent of the shares with voting rights in the ordinary general meeting, have the right to put forward a list.

The lists of candidates, undersigned by the parties presenting them, must be filed at the Company's registered office at least ten days before the day fixed for the meeting in first call. A description of the professional résumé of the individuals standing for election must be enclosed with the lists together with statements whereby the single candidates accept the nomination and attest, under their own personal responsibility, to the non-existence of any reasons for ineligibility or incompatibility as well as to the existence of the requisites prescribed by law or by the articles for the position.

Any lists put forward which do not comply with the aforesaid provisions shall be considered not to have been put forward.

Each candidate may be included on only one list, under penalty of ineligibility.

Likewise, any individuals who are not in possession of the requisites established by the applicable rules and regulations or who already hold the position of statutory auditor in more than five companies with stocks listed on official Italian markets, with the exception of the subsidiaries of Pirelli & C.,

Each individual with voting rights may vote for only one.

The election of the members of the Board of Statutory Auditors is performed as follows: two standing statutory members and one alternate member are taken from the list which has obtained the highest number of votes, in the progressive order in which same are listed thereon; the remaining statutory member and the other alternate member are taken from the list which has obtained the highest number of votes from the meeting after the first list, again in the progressive order in which same are listed thereon; in the event of several lists obtaining the same number of votes, a new run-off vote between the said lists will be cast by all the shareholders present at the meeting, and the candidates on the list which obtains the simple majority of the votes will be appointed.

The Chairman of the Board of Statutory Auditors shall be the statutory member indicated as the first candidate on the list which obtained the highest number of votes.

In case of death, waiver or resignation of a Statutory Auditor, the deputy belonging to the same list as the resigned statutory auditor all take the place of same. In the event of substitution of the Chairman of the Board of Statutory Auditors, the chair shall be taken by the other statutory member on the list to which the resigning chairman belonged; if it is not possible to perform substitutions and replacements as set out hereinabove, then a meeting shall be convened to integrate and complete the Board of Statutory Auditors and which shall pass resolutions with a relative majority.

When the meeting has to make provisions, pursuant to the terms of the foregoing paragraph or to the terms of law, for the appointment of statutory auditors and/or alternates needed to complete the Board of Statutory Auditors, it shall proceed as follows: if statutory auditors appointed from the majority list have to be replaced, then the appointment is made with a relative majority vote without being tied to any list; if on the other hand statutory auditors appointed by the minority shareholders have to be replaced, the meeting shall replace same with a relative majority vote choosing names where possible from amongst the candidates indicated on the list on which the statutory auditor to be substituted appeared.

If only one single list has been put forward, then the meeting shall cast its vote regards same; if the list obtains a relative majority, then the first three candidates on the list in progressive order shall be appointed as the standing statutory auditors, and the fourth and fifth candidate shall be appointed as alternate statutory auditors; Chairman of the Board of Statutory Auditors shall be the person indicated at the top of the list put forward; in case of death, waiver or resignation of a statutory auditor, and in the event of substitution of the Chairman of the Board of Statutory Auditors, same shall be replaced respectively by an alternate statutory auditor and a standing statutory auditor in the order arising from the progressive numbering of the said list.

Failing any lists, the Board of Statutory Auditors and its Chairman shall be appointed by the general meeting with the majorities prescribed by law.

Resigning statutory auditors may be re-appointed.

### \* Article 2 of the by-laws states the corporate business purpose as follows:

- a) investments made in other companies or entities in Italy and abroad;
- b) the financing, technical and financial coordination of the companies or entities in which it has holdings;
- c) the buying or selling, possession, management or placement of public or private securities.
- d) property and non-property leasing, the granting of loans to third parties and the trading and lease of properties as well as the management of those owned and the consequent construction works.

# SHAREHOLDERS' RESOLUTIONS

## APPROPRIATION OF NET INCOME

The year ended December 31, 2001 shows a net income of Euros 148,386,648.

The Board proposes the distribution of dividends, gross of any withholding taxes, of:

- Euros 0.08 for each ordinary share
- and
- Euros 0.0904 for each savings share.

A tax credit equal to 56.25 percent is due on the dividends proposed for distribution. In relation to the estimated availability of the taxes pursuant to art. 105, paragraph 1, letter a) (ordinary tax credit) and letter b) (limited tax credit), a proposal is put forward to assign the ordinary and limited tax credit to the dividends as follows:

- ordinary shares
  - tax credit of Euros 0.04500, of which Euros 0.03150 with refund rights and Euros 0.01350 without refund rights;
- savings shares
  - tax credit of Euros 0.05085, of which Euros 0.03559 with refund rights and Euros 0.01526 without refund rights.

If in agreement with our proposal, we ask you to pass the following

### Resolution

The shareholders' meeting:

- having examined the Report of the Managing Partners;
- having examined the Report of the Board of Statutory Auditors;
- having examined the financial statements at December 31, 2001, which show a net income of 148,386,648

### Votes

a) to approve:

- the Report of the Managing Partners;
- the balance sheet, statement of income, the notes to financial statements for the year ended December 31, 2001 as presented by the Board of Managing Partners in their entirety, in their individual items, with the accruals proposed;

b) to appropriate the net income of Euros 148,386,648 as follows:

- to the legal reserve (until it reaches one-fifth of share capital) Euros 2,866,197
- to the shareholders:
  - Euros 0.08 to No. 615,655,851 (\*) ordinary, shares, for a total of Euros 49,252,468
  - Euros 0.0904 to No. 34,418,257 savings shares, for a total of Euros 3,111,410
  - with the assignment of the tax credit as proposed by the Board of Managing Partners
- to retained earnings Euro 93,156,573

(\*) net of No. 2,617,500 treasury shares currently held by the Company.

- c) to authorize the managing partners, in the event treasury shares are purchased before the dividend coupon is presented in the preceding point b), to appropriate the dividends to which such shares are entitled to retained earnings, as well as appropriate the balance of the amounts rounded off which could arise at the time of payment of the dividends to retained earnings.

## **APPOINTMENT OF THE INDEPENDENT AUDIT FIRM**

With the audit of the financial statements for the year ended December 31, 2001, the appointment of Price Waterhouse S.p.A. (now PricewaterhouseCoopers S.p.A.) by the shareholders' meeting of May 25, 1999 will expire.

Therefore, in accordance with Legislative Decree No. 58 of February 24, 1998, art. 159 (the so-called "Draghi Law"), it becomes necessary to appoint independent auditors for the audit of the statutory financial statements and the consolidated financial statements, and, in compliance with the Consob recommendation No. 97001574 of February 20, 1997, for the interim six-month reports, for the years ending December 31, 2002, 2003 and 2004.

To this end, the proposal made by PricewaterhouseCoopers S.p.A. relating to this same service was obtained. This proposal is prepared in accordance with the criteria established by Consob in its communication No. 96003556 of April 18, 1996.

Since it would be opportune and also for reasons of an organizational nature, including the fact that the Group would incur higher internal costs should another audit firm be chosen, we propose that PricewaterhouseCoopers S.p.A. be confirmed as auditors for the three years 2002, 2003 and 2004.

The annual fee requested amounts to a total of Euros 48,000, of which Euros 15,000 is for the statutory financial statements, Euros 12,000 for the consolidated financial statements of the Group, Euros 13,000 for the limited review of the interim six-month financial statements and Euros 8,000 for the controls required by Legislative Decree No. 58 dated February 24, 1998 art. 155, 1st paragraph, letter a).

The above fees have been calculated on the basis of the hourly rate which is valid until June 30, 2003. On July 1, 2003, and every year thereafter on July 1, the fees will be adjusted on the basis of the total change in the ISTAT cost-of-living index.

These fees do not include out-of-pocket expenses, which will be invoiced on the basis of the actual costs incurred, or the supervisory fee on behalf of Consob.

We would also like to inform you that the major subsidiaries will confirm the same audit firm of PricewaterhouseCoopers S.p.A. for the audit of their financial statements and will directly bear the costs of the audits which will amount to about Euros 900,000 for the Italian subsidiaries and about Euros 2,440,000 for the foreign subsidiaries.

If in agreement with our proposals, we ask you to pass the following

### **Resolution**

"The shareholders' meeting:

- having taken note of the proposal by the Board of Managing Partners
- having taken note of the favorable opinion of the Board of Statutory Auditors to the proposal of PricewaterhouseCoopers S.p.A.

### **votes**

- to appoint PricewaterhouseCoopers S.p.A., in accordance with Legislative Decree



No. 58 of February 24, 1998, article, 159, and taking into account Consob recommendation No. 97001574 of February 20, 1997, as the auditors of the statutory financial statements and the consolidated financial statements and the six-months reports for the years ending December 31, 2002, 2003 and 2004;

- to establish, on the basis of the fee proposal prepared in accordance with the criteria of Consob resolution No. 96003556 of April 18, 1996, the annual fee in Euros 48,000 payable to the above audit firm, of which Euros 15,000 is for the statutory financial statements, Euros 12,000 for the consolidated financial statements of the Group, Euros 13,000 for the limited review of the interim six-month financial statements and Euros 8,000 for the controls required by Legislative Decree No. 58 dated February 24, 1998, art. 155, 1st paragraph, letter a).

The above fees have been calculated on the basis of the hourly rate which is valid until June 30, 2003. On July 1, 2003, and every year thereafter on July 1, the fees will be adjusted on the basis of the total change in the ISTAT cost-of-living index.

These fees do not include out-of-pocket expenses, which will be invoiced on the basis of the actual costs incurred, or the supervisory fee on behalf of Consob.

Furthermore, the fees will be adjusted when exceptional or unforeseen circumstances arise, including significant changes in the structure and business of the company which could require additional time to carry out the audit work."

## **PROPOSAL FOR THE PURCHASE AND DISPOSITION OF TREASURY SHARES**

Dear Shareholders,

In the resolution passed on May 10, 2001, you authorized the purchase of treasury shares (ordinary and savings shares) up to maximum amount of Euros 100 million and for a period of 18 months from the date of the resolution.

The above authorization will expire on November 9, 2002.

With regard to the purchase of treasury shares, the same opportunities now exist which persuaded the managing partners to propose to you the May 2001 resolution, that being the convenience of taking action (in accordance with the law and ensuring equal treatment to the shareholders), in relation to contingent market situations, to act as a stabilizing force in improving the liquidity of the market, favor normal trading and facilitate the maximum consistency between the market price and the intrinsic value of the stock.

We therefore believe it useful to propose, with today's shareholders' meeting and to avoid convening a specific meeting close to the above expiration date, to proceed to issue a new authorization, canceling the existing authorization not used; the related procedures for the purchase and sale, as well as the procedures for the sale of the treasury shares already held in portfolio are contained in the following proposed resolution.

If in agreement with our proposal, we ask you to pass the following

### **Resolution**

"The shareholders' meeting

- having taken note of the proposal of the managing partners;

- having taken note of the provisions of art. 2357 and 2357-ter of the Italian Civil Code;
- having taken note that, as of today, the company holds No. 2,617,500 ordinary shares, equal to 0.42 percent of share capital, amounting to Euros 326,177,710.04

### Votes

- a) to cancel the resolution passed by the shareholders on May 10, 2001 authorizing the purchase of treasury shares and the disposition of the same, as not used;
- b) to authorize the purchase of treasury shares (ordinary and savings shares) of par value Euro 0.52 each for a maximum amount of Euros 100 million, establishing that:
  - the purchase can be made in one or more instances within 18 months of the date of this resolution;
  - the purchase shall be carried out according to the manner agreed with the company managing the market so that equal treatment among shareholders can be ensured, in accordance with Legislative Decree No. 58 of February 24, 1998, art. 132;
  - the purchase price of each share shall not be either lower or higher, in both cases, than a maximum of 15 percent of the average reference price recorded by the Italian stock exchange in the three trading sessions prior to each single transaction;
  - the maximum number of shares purchased shall not be higher than that representing 5 percent of the shares constituting the entire share capital each time, also in observance of the total limit of ownership of 10 percent of share capital established by law;
  - the purchase shall be made by using "retained earnings" and/or the "share premium reserve" as shown in the latest approved financial statements, setting up a reserve for treasury shares in the manner and limits established by law;
  - the Board of Managing Partners can dispose, without any time limit, of the treasury shares already held or thus purchased even before having completed all the purchases; the sale can occur in one or more instances; the shares shall be sold through a sale or exchange (also through a public offer, to the shareholders, to employees and/or directors and/or associates - also as part of any stock option plans); in the event of sale, the price shall not be lower than the purchase prices; such price limit shall not be applied whenever the sale of the shares is made to the employees and/or directors and/or associates of the company, as part of any stock option plans; the shares can also be sold by being attached to bonds or warrants for their exercise.
  - to confer to the Board of Managing Partners and on its behalf the Chairman and Deputy Chairman, separately, any and all powers necessary to make purchases and sales and in any case to carry out the preceding resolutions, also through those holding power of attorney, fulfilling that eventually required by the appropriate authorities".

Milan, March 28, 2002

The Board of Managing Partners

## **CONSOLIDATED FINANCIAL STATEMENTS AT DECEMBER 31, 2001**

# CONSOLIDATED BALANCE SHEETS

## ASSETS

(in thousands of euros)

	12/31/2001	12/31/2000
<b>A) CAPITAL SUBSCRIPTION RIGHTS</b>		
Portion uncalled	-	-
<b>B) FIXED ASSETS</b>		
<b>I) Intangible assets</b>		
Formation costs	6,042	8,302
Patents and design patent rights	4,101	5,365
Concessions, licenses, trademarks and similar rights	8,076	6,469
Goodwill	15,416	8,066
Difference on consolidation	544,938	558,865
Intangible assets in progress and payments on account	12,781	5,327
Other intangible assets	83,393	78,563
<b>TOTAL INTANGIBLE ASSETS</b>	<b>674,747</b>	<b>670,957</b>
<b>II) Property, plant and equipment</b>		
Land and buildings	721,589	729,737
Plant and machinery	1,329,564	1,363,544
Industrial and commercial equipment	147,790	130,240
Other property, plant and equipment	192,035	161,402
Assets under construction and advances to suppliers	434,922	233,077
<b>TOTAL PROPERTY, PLANT AND EQUIPMENT</b>	<b>2,825,900</b>	<b>2,618,000</b>
<b>III) Financial assets</b>		
Investments in:		
a) Subsidiaries	1,136	5,895
b) Jointly controlled subsidiaries	3,150,840	-
c) Associated companies	115,559	86,491
d) Other companies	315,570	321,274
Financial receivables:		
a.1) Subsidiaries due within 1 year	-	4,093
a.2) Subsidiaries due beyond 1 year	14,662	14,662
b.1) Associated companies due within 1 year	215,858	203,251
b.2) Associated companies due beyond 1 year	22	-
c.1) Other companies due within 1 year	21,280	21,477
c.2) Other companies due beyond 1 year	74,893	83,340
Other securities	14,247	27,681
Treasury shares	4,678	4,678
<b>TOTAL FINANCIAL ASSETS</b>	<b>3,928,745</b>	<b>772,842</b>
<b>TOTAL FIXED ASSETS</b>	<b>7,429,392</b>	<b>4,061,799</b>

**ASSETS (continued)**

(in thousands of euros)

	12/31/2001	12/31/2000
<b>C) CURRENT ASSETS</b>		
I) Inventories		
Raw materials and supplies	295,545	355,940
Work in process and semifinished products	325,373	307,523
Contract work in progress against orders	153,482	210,865
Finished products and goods for resale	580,295	633,252
Advances	8,758	15,105
<b>TOTAL INVENTORIES</b>	<b>1,363,453</b>	<b>1,522,685</b>
II) Receivables		
Trade	1,784,613	1,868,776
Subsidiaries	292	5,819
Associated companies	23,889	28,358
Other receivables	920,769	1,154,621
<b>TOTAL RECEIVABLES</b>	<b>2,729,563</b>	<b>3,057,574</b>
III) Current financial assets		
Other investments	20,700	250
Other securities	562,110	1,246,487
<b>TOTAL CURRENT FINANCIAL ASSETS</b>	<b>582,810</b>	<b>1,246,737</b>
IV) Cash and banks		
Bank and postal deposits	454,784	3,713,089
Checks	8,751	10,188
Cash on hand	7,851	8,873
<b>TOTAL CASH AND BANKS</b>	<b>471,386</b>	<b>3,732,150</b>
<b>TOTAL CURRENT ASSETS</b>	<b>5,147,212</b>	<b>9,559,146</b>
<b>D) ACCRUED INCOME AND PREPAID EXPENSES</b>		
Accrued income	37,652	121,878
Prepaid expenses	37,790	32,810
<b>TOTAL ACCRUED INCOME AND PREPAID EXPENSES</b>	<b>75,442</b>	<b>154,688</b>
<b>TOTAL ASSETS</b>	<b>12,652,046</b>	<b>13,775,633</b>

## CONSOLIDATED BALANCE SHEETS

### LIABILITIES AND SHAREHOLDERS' EQUITY

(in thousands of euros)

	12/31/2001	12/31/2000
<b>A) SHAREHOLDERS' EQUITY</b>		
- Of Pirelli & C.	2,118,705	2,171,261
I) Share capital	325,408	320,959
II) Share premium reserve	501,054	485,617
III) Revaluation reserve	707	707
IV) Legal reserve	65,014	62,212
V) Reserve for treasury shares in portfolio	4,678	4,678
VII) Other reserves	947,624	(128,870)
VIII) Retained earnings	149,265	21,298
IX) Net income	124,955	1,404,660
- Minority interest	3,288,687	3,672,662
a) Capital and reserves	3,219,430	1,318,038
b) Net income	69,257	2,354,624
<b>TOTAL SHAREHOLDERS' EQUITY</b>	<b>5,407,392</b>	<b>5,843,923</b>
<b>B) PROVISIONS FOR LIABILITIES</b>		
Pensions and similar obligations	237,806	215,686
Income taxes	225,560	201,919
Other provisions	401,264	582,185
<b>TOTAL PROVISIONS FOR LIABILITIES AND EXPENSES</b>	<b>864,630</b>	<b>999,790</b>
<b>C) PROVISION FOR EMPLOYEES' LEAVING INDEMNITY</b>	<b>105,271</b>	<b>178,309</b>
<b>D) PAYABLES</b>		
Bonds	661,407	655,027
Convertible bonds	86,177	106,561
Bank borrowings	2,513,307	1,473,710
Other financial companies	155,308	450,773
Advances from customers	188,249	291,907
Trade	1,328,243	1,448,664
Subsidiaries	-	232
Associated companies	4,529	13,814
Taxes	531,591	1,242,716
Social security agencies	49,817	56,662
Other payables	473,856	633,208
<b>TOTAL PAYABLES</b>	<b>5,992,484</b>	<b>6,373,274</b>
<b>E) ACCRUED LIABILITIES AND DEFERRED INCOME</b>		
Accrued liabilities	238,314	343,580
Deferred income	43,955	36,757
<b>TOTAL ACCRUED LIABILITIES AND DEFERRED INCOME</b>	<b>282,269</b>	<b>380,337</b>
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>	<b>12,652,046</b>	<b>13,775,633</b>

**MEMORANDUM ACCOUNTS**

(in thousands of euros)

	12/31/2001	12/31/2000
<b>PERSONAL GUARANTEES</b>		
- Sureties on behalf of other companies	159,722	152,176
- Endorsements on behalf of other companies	34,969	25,279
	194,691	177,455
<b>THIRD PARTY ASSETS HELD IN DEPOSIT</b>		
- Securities held in deposit	167,072	142,175
- Goods in process	2,799	1,997
	169,871	144,172
<b>ASSETS HELD BY THIRD PARTIES</b>		
- Securities held as guarantees and sureties	68,081	114,542
- Shares held in deposit	245,150	310,948
- Goods in process	10,757	7,752
	323,988	433,242
<b>COMMITMENTS</b>		
- Capital expenditures	57,635	124,701
- Nominal value of put options given to third parties	2,165,102	-
- Purchase of equity investments	38,786	-
- Securities to be delivered	75,946	335,237
	2,337,469	459,938
<b>OTHER MEMORANDUM ACCOUNTS</b>		
- Potential losses for risk of default on discounted bills	67,188	241
- Forward securities purchase	200,000	-
	267,188	241
<b>TOTAL MEMORANDUM ACCOUNTS</b>	<b>3,293,207</b>	<b>1,215,048</b>

## CONSOLIDATED STATEMENTS OF INCOME

(in thousands of euros)

	2001	2000
<b>A) PRODUCTION VALUE</b>		
Revenues from sales and services	7,761,985	7,696,567
Changes in inventories of work in process, semifinished and finished products	(93,782)	66,279
Changes in contract work in progress against orders	(4,876)	(40,278)
Increase in property, plant and equipment	16,512	13,501
Other revenues and income:		
a) Miscellaneous	210,815	214,105
b) Government grants	7,516	11,525
<b>TOTAL PRODUCTION VALUE</b>	<b>7,898,170</b>	<b>7,961,699</b>
<b>B) PRODUCTION COSTS</b>		
Raw materials, supplies and goods for resale	(3,888,402)	(3,982,920)
Service expenses	(1,314,288)	(1,229,467)
Lease and rent expenses	(85,581)	(96,347)
Personnel costs	(1,549,744)	(1,623,539)
Amortization, depreciation and writedowns:		
a) amortization of intangible assets	(82,098)	(76,268)
b) Depreciation of property, plant and equipment	(325,566)	(341,825)
c) Writedowns of receivables included in current assets and cash and banks	(79,945)	(19,675)
Changes in inventories of raw materials, supplies and goods for resale	(6,511)	88,932
Accruals for liabilities	(3,765)	(155)
Other accruals	(30,521)	(17,234)
Other operating expenses	(235,224)	(231,680)
<b>TOTAL PRODUCTION COSTS</b>	<b>(7,601,645)</b>	<b>(7,530,178)</b>
<b>DIFFERENCE BETWEEN VALUE AND PRODUCTION COSTS</b>	<b>296,525</b>	<b>431,521</b>
<b>C) FINANCIAL INCOME AND EXPENSES</b>		
Investment income	12,176	14,348
Other financial income:		
a) from receivables included in fixed assets		
- associated companies	-	37
- other companies	319	556
b) from securities included in fixed assets	518	2,048
c) from securities included in current assets	3,550	13,989
d) income other than the above	461,018	306,265
Interest and other financial expenses	(515,383)	(450,998)
<b>TOTAL FINANCIAL INCOME AND EXPENSES</b>	<b>(37,802)</b>	<b>(113,755)</b>



## CONSOLIDATED STATEMENTS OF INCOME

(continued)

(in thousands of euros)

	2001	2000
<b>D) VALUATION ADJUSTMENTS TO FINANCIAL ASSETS</b>		
Revaluations	9.951	17.342
Writedowns	(41.517)	(23.027)
<b>TOTAL ADJUSTMENTS</b>	<b>(31.566)</b>	<b>(5.685)</b>
<b>E) EXTRAORDINARY ITEMS</b>		
Extraordinary income	425.670	5.633.530
Extraordinary expenses	(270.075)	(1.112.168)
<b>TOTAL EXTRAORDINARY ITEMS</b>	<b>155.595</b>	<b>4.521.362</b>
<b>INCOME BEFORE INCOME TAXES</b>	<b>382.752</b>	<b>4.833.443</b>
Income taxes	(188.540)	(1.074.159)
<b>NET INCOME</b>	<b>194.212</b>	<b>3.759.284</b>
<b>PIRELLI &amp; C.</b>	<b>124.955</b>	<b>1.404.660</b>
<b>MINORITY INTEREST</b>	<b>69.257</b>	<b>2.354.624</b>

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## FORM AND CONTENT

The consolidated financial statements for the year ended December 31, 2001 have been drawn up in accordance with the provisions introduced by Legislative Decree No. 127 of April 9, 1991 which incorporate those of the VII directive of the EC.

The consolidated financial statements include the financial statements of Pirelli & C., the parent company, and the companies in which Pirelli & C. holds, directly or indirectly, control as defined by Legislative Decree 127/91, art. 26.

Also included in the consolidation are some companies in which Pirelli & C. owns less than 50 percent of the share capital in joint venture with other operators to carry out specific real estate projects.

These companies, in which no one shareholder has direct control, are consolidated proportionally.

The subsidiaries which fall under the cases indicated in Legislative Decree 127/91, art. 28 are excluded from the scope of consolidation.

The list of companies in consolidation, the statement of cash flows and the statement of changes in shareholders' equity are presented in the supplementary information.

All amounts are expressed in thousands of euros, unless otherwise indicated.

PricewaterhouseCoopers S.p.A. has been appointed as the auditors for the consolidated financial statements pursuant to art. 159 of Legislative Decree No. 58 of February 24, 1998 and taking into account CONSOB recommendation of February 20, 1997, as voted by the shareholders' meeting of May 25, 1999 which appointed the audit firm for the three-year period 1999-2001. The agreed fee is equal to Euros 12 thousand per year.

The fees for the audit of the individual Group companies have been borne directly by the companies concerned; the fees for the year 2001 have amounted to approximately Euros 3,059 thousand, including the fees for the limited review of the six-month financial statements.

## PRINCIPLES OF CONSOLIDATION

The financial statements used in consolidation are those at December 31, 2001 prepared for approval by the shareholders of the individual companies adjusted, where necessary, to agree with the "Common Accounting Principles" of the Group which conform to those established by Legislative Decree 127/91 and the principles set forth by the National Boards of Dottori Commercialisti and Ragionieri.

The financial statements of subsidiaries operating in high-inflation countries have

been adjusted to take into account the changed purchasing power of the local currency, in accordance with the principles for inflation accounting.

The financial statements expressed in foreign currency have been translated into euros at rates prevailing at year-end for the balance sheet and at average exchange rates for the statement of income, with the exception of the financial statements of companies operating in high-inflation countries, whose statements of income have been translated at rates ruling at year-end.

The differences arising from the translation of beginning shareholders' equity at year-end exchange rates have been recorded in translation adjustments in shareholders' equity.

The exchange rates which have been applied are presented under "Other information" in the notes.

The principles of consolidation are as follows:

- For companies consolidated using the full and proportional consolidation methods, the accounting value of each investment is eliminated against the underlying net equity. For companies accounted for using the equity method, the cost of acquisition is adjusted to the underlying share of net equity at December 31, 2001, as shown by the related financial statements.

For investments in consolidated companies and for those valued using the equity method, the differences, at acquisition, between the carrying value of the investments and the corresponding share of net equity have been accounted for as follows:

- negative differences are shown as a deduction from fixed assets, except those of definite amount; any additional negative difference is recorded in the consolidation reserve;
- positive differences, where not attributable to the assets or liabilities of the investee companies, have been recorded as a reduction of the consolidation reserve up to the amount of same and the remaining amount has been recorded as an asset in "difference on consolidation".
- The assets, liabilities, revenues and costs related to transactions among consolidated companies, including dividends paid within the Group, have been eliminated.
- The gains and losses arising from transactions among consolidated companies, if not yet realized through transactions with third parties, have been eliminated.
- The minority interest in the share of the net equity and the results of operations are shown separately, respectively, under shareholders' equity in the balance sheet and in the statement of income.

The reconciliation between the net results and shareholders' equity of Pirelli & C. at December 31, 2001 and the corresponding consolidated figures is presented in the supplementary information.

## **SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

The accounting policies adopted are those set forth by the provisions of art. 2426 of the Italian Civil Code, referred to and supplemented by the provisions of Consob and by the accounting principles issued by the National Boards of Dottori Commercialisti and Ragionieri.

The accounting principles have been applied on a basis consistent with the prior year. Unless otherwise indicated, the accounting principles applied in the valuation of the components of the consolidated financial statements are in conformity with those adopted in the financial statements of the parent company.

### **INTANGIBLE ASSETS**

"Formation costs" relate to the capital increase costs of consolidated companies and are amortized over a period of five years.

"Patents and design patent rights", "concessions, licenses, trademarks and similar rights" are amortized over their expected economic lives, estimated in a period of five years.

"Goodwill" includes the amount paid for this purpose by the Group companies for the acquisition of companies or other corporate transactions. Goodwill is amortized over a period of ten years, which identifies the possible period of utilization.

"Difference on consolidation", relative to the acquisition of investments, is amortized over a period of between ten and 20 years; this period identifies the possible period of utilization.

The caption "other intangible assets" includes sundry costs benefiting future periods, and in particular refers to:

- applied software acquisition costs, amortized over a period of five years;
- leasehold improvements, amortized over the duration of the lease and, in any case, not more than five years;
- loan acquisition costs, amortized over a period not exceeding the duration of the loan and, in any case, not more than five years;
- image awareness costs benefiting future periods, amortized over the duration of the contract and, in any case, not more than five years.

### **PROPERTY, PLANT AND EQUIPMENT**

Property, plant and equipment are stated at purchase or production cost including directly attributable incidental expenses and increased by revaluations effected in accordance with specific laws.

Depreciation is calculated starting from the month in which the asset is available and ready for use or potentially able to provide economic benefits.

Depreciation is calculated on the straight-line method on a monthly basis at rates

designed to completely write-off the assets over their estimated useful lives or, for disposals, up to the last month of utilization, as follows:

Buildings	3%	-	10%
Plant	7%	-	10%
Machinery	5%	-	10%
Tools and equipment	10%	-	33%
Furniture	10%	-	33%
Vehicles	10%	-	25%

In addition, property, plant and equipment are written down when there is a permanent impairment to below their net book value, in accordance with article 2426, point 3 of the Italian Civil Code.

Ordinary maintenance and repair costs are expensed in the year incurred.

Government investment grants relating to property, plant and equipment are recorded in a special provision under liabilities and are released to income in proportion to the future depreciation of the assets to which they refer.

Assets acquired under financial leasing contracts are accounted for as property, plant and equipment with a contra-entry to financial payables and are therefore capitalized and depreciated over their estimated useful lives. The lease installment is divided between interest expense, recorded in the statement of income, and the repayment of principal, recorded as a deduction of the financial liability.

## **FINANCIAL ASSETS**

### **- Investments**

Equity investments in associated companies are valued using the equity method, in accordance with article 2359 of the Italian Civil Code.

Equity investments in jointly controlled subsidiaries are accounted for using the equity method.

Equity investments in unconsolidated subsidiaries and other companies are valued at cost and reduced, if necessary, to account for any permanent impairment in value. The original amount is reinstated whenever the reasons for the adjustment no longer apply.

### **- Other securities**

Other securities are stated at cost, reduced for any permanent impairment in value.

### **- Treasury shares**

Treasury shares are valued at purchase cost using the LIFO method and adjusted for any permanent impairment in value.

In accordance with article 2357-ter of the Italian Civil Code, an undistributable reserve has been recorded in shareholders' equity for an amount corresponding to the carrying value.

## **RECEIVABLES AND PAYABLES**

Receivables (under both fixed assets and current assets) are stated at estimated realizable value. Payables are stated at nominal value.

Receivables and payables in foreign currencies other than the functional currency of the individual companies are adjusted to the year-end exchange rates or the agreed exchange rates under hedging contracts; the effects of the hedging contracts are recorded in accrued income and accrued liabilities; related exchange gains or losses are recorded in the statement of income in accordance with the accrual concept.

## **INVENTORIES**

Inventories are stated at the lower of cost, determined on the FIFO basis, and estimated realizable value.

Work in process on long-term contracts is stated in proportion to the stage of completion of the work on the basis of agreed prices and taking into account estimated losses.

The cost of strategic inventories of metals (copper, aluminum, etc.) is determined using the LIFO method.

Inventories of real estate property consist of areas for building, property under renovation, property under construction, property completed and intended for sale, real estate trading property for sale and construction in progress against orders.

Areas for building are stated at the lower of purchase cost, plus incremental expense and interest expense capitalized in the pre-construction phase, and the corresponding realizable value.

Property under construction and/or in the process of renovation also take into account the income earned on the construction order. This income is calculated on the basis of the total agreed sales price in proportion to the stage of completion of the work determined as a percentage of total cumulative costs incurred up to the balance sheet date in relation to estimated costs to completion.

Property under construction and/or in the process of renovation, for which a preliminary lease agreement has been signed, is valued at the lower of cost plus incremental expenses and interest expense, and the corresponding realizable value.

Real estate trading property for sale is valued at the lower of cost and market value. Incremental expenses incurred up to the time of sale are added to the purchase cost.

Construction in progress is valued according to the agreed sales price in relation to the stage of completion of the project.

Any losses to complete the project are charged entirely in the year in which they become known.

Inventories also include requests for additional expenditures incurred in constructing university buildings, according to a conservative estimate of their recognition. Requests for additional sales consideration over the contract price are recorded in the financial statements if the amounts are reasonably certain of collection. Penalties for late delivery of the property are accrued whenever such delays are chargeable to the contractor and not the principal.

## **OTHER INVESTMENTS AND OTHER SECURITIES**

Investments and other securities recorded in current assets designated for trading purposes and/or to meet treasury requirements, are stated at the lower of cost and fair value.

## **CASH AND BANKS**

Cash and banks are stated at nominal value.

## **PROVISIONS FOR LIABILITIES AND EXPENSES**

### **- Provisions for pensions and similar obligations**

These provisions refer to pensions, health care and other benefits in favor of employees, not included in specific laws but covered by local labor agreements, and benefit plans operating at some Group companies.

The principle applied is that of allocating the entire cost at maturity over the service lives of the employees based on entitlement earned, using actuarial methods.

### **- Provision for income taxes**

The provision for income taxes includes deferred tax liabilities and tax liabilities likely to be incurred but uncertain as to the amount or as to the date on which they will arise; definite and certain income taxes payable are recorded in a specific account in the balance sheet.

### **- Other provisions**

Other provisions include liabilities that are certain or likely to be incurred but uncertain as to amount or as to the date on which they will arise.

## **PROVISION FOR EMPLOYEES' LEAVING INDEMNITY**

The provision for employees' leaving indemnity includes amounts payable to employees accrued on their behalf in accordance with specific laws or national labor contracts.

## **ACCRUALS AND DEFERRALS**

Accruals and deferrals are accounted for on the accrual basis.

## **GUARANTEES AND COMMITMENTS**

Guarantees given to third parties are recorded at the contract value of the commitment assumed on behalf of the beneficiary.

Third party securities held in deposit are recorded at nominal value.

## **FINANCIAL INSTRUMENTS**

Forward contracts and derivatives used for hedging purposes are recorded under commitments at the time the contract is stipulated, for the notional amount.

Income and expenses, as well as any effects, corresponding to the difference between the original contract amount and the fair value at the end of the year, are accounted for on the accrual basis.

## **RECOGNITION OF REVENUES**

Revenues from the sale of products are recognized at the time of transfer of title of ownership which generally coincides with the delivery or shipment of the goods.

Revenues from sales are shown net of discounts and allowances.

## **RESEARCH, DEVELOPMENT AND ADVERTISING COSTS**

"Research & development and advertising costs" are charged to the statement of income when incurred.

## **DIVIDENDS**

Dividends are recorded on the cash basis, gross of tax credits.

## **INCOME TAXES**

Current income tax liabilities are determined on the basis of a realistic estimate of the tax expenses payable under current tax laws; the related liability is shown net of advance payments, withholdings and tax credits in Taxes payable.

Deferred taxes are calculated on the timing difference existing between the value of assets and liabilities in the balance sheet and their tax basis (liability method). Any deferred tax liabilities are recorded in the provision for income taxes. Deferred tax assets are recorded only where is a reasonable certainty of recovery and these are recorded in "Other receivables".



## CONSOLIDATED BALANCE SHEETS

### ASSETS

#### B) Fixed assets

##### 1) Intangible assets

Intangible assets can be analyzed as follows:

	(in thousands of euros)					
	12/31/2000	Translation adjustment	Increase	Decrease	Amortization	12/31/2001
• Formation costs	8,302	14	2,089	(6)	(4,357)	6,042
• Patents and design patent rights	5,365		1,021		(2,285)	4,101
• Concessions, licenses, trademarks and similar rights	6,469	(2)	4,562		(2,953)	8,076
• Goodwill	8,066	159	12,006	(146)	(4,669)	15,416
• Difference on consolidation	558,865		37,156	(17,652)	(33,431)	544,938
• Other	83,890	(1,355)	50,964	(2,922)	(34,403)	96,174
	<b>670,957</b>	<b>(1,184)</b>	<b>107,798</b>	<b>(20,726)</b>	<b>(82,098)</b>	<b>674,747</b>

The increase in "formation costs" refers to the registration tax capitalized by the Pirelli Tyre Holding N.V. - Amsterdam - relative to the increase in share capital subscribed to by Pirelli S.p.A..

The increase in "patents and design patent rights" refers mainly to costs incurred by the subsidiary Pirelli Cavi e Sistemi S.p.A. to file industrial patents.

"Concessions, licenses, trademarks and similar rights" principally include the costs incurred to extend the number of software user rights for Pirelli S.p.A.'s new integrated information system (SAP/ORACLE).

The increase in "goodwill" refers to the acquisition of the former BICC business by Pirelli General Plc and the acquisition of the entire share capital of Progetti Creativi S.r.l. by Pirelli & C. Agency S.p.A..

"Difference on consolidation" at December 31, 2001 includes Euros 480,712 thousand representing the difference between the price paid and the underlying net equity of the consolidated company Pirelli S.p.A. which arose following the purchases of shares by Pirelli & C. and by Pirelli & C. Luxembourg S.A. net of amortization (calculated over a period of 20 years).

The increase refers to Euros 36,568 thousand for the purchase of Pirelli S.p.A. shares during the year.

The major items included in "other" refer to software applications costs, expenses for the development of a new commercial and reporting system, corporate reorganization expenses, expenses for the implementation of e-business solutions, loan acquisition costs and leasehold improvements.

## **II) PROPERTY, PLANT AND EQUIPMENT**

The movements in property, plant and equipment during the year are as follows:

	(in thousands of euros)	
	12/31/2001	12/31/2000
<b>Gross value</b>		
Opening balances	6,263,534	5,876,459
Translation adjustment	(269,905)	79,183
Change in scope of consolidation	(14,405)	(14,628)
Additions	646,218	569,566
Disposals	(219,743)	(247,046)
	<b>6,405,699</b>	<b>6,263,534</b>
<b>Accumulated depreciation</b>		
Opening balances	3,645,534	3,408,171
Translation adjustment	(224,702)	63,233
Change in scope of consolidation	(4,244)	(12,782)
Depreciation charge for the year	325,566	341,825
Disposals	(162,355)	(154,913)
	<b>3,579,799</b>	<b>3,645,534</b>
<b>Net values</b>	<b>2,825,900</b>	<b>2,618,000</b>

The net increase from the prior year is due to the combination of the following:

- translation adjustments, in reference to property, plant and equipment included in the financial statements of foreign companies, and due to the weakness of the euro against the currencies in the countries in which the Group companies operate;
- additions, Euros 76,652 thousand higher than those in the prior year, equal to 1.98 times depreciation;
- disposals, mainly in reference to plants as a consequence of production rationalization.

Gross values include about Euros 7,871 thousand of assets which are no longer in use and are being held for transfer to other Group companies or disposal to outside parties.

## **III) Financial assets**

"Investments in subsidiaries" amount to Euros 1,136 thousand and consist of companies recently formed and/or insignificant to the consolidated financial statements in terms of net equity or results of operations.

Details are as follows:

(in thousands of euros)			
Description		Country	% Amount holding
AFCAB Holding (Proprietary) Ltd.	South Africa	50.00%	197
Delta S.p.A.	Italy	100.00%	136
Progetto Moncalieri S.r.l.	Italy	100.00%	90
Progetto Bicocca Le Torri S.r.l.	Italy	100.00%	64
Parcheggi Bicocca S.r.l.	Italy	75.00%	64
Other minor companies	Italy		585
			<b>1,136</b>

"Investments in jointly controlled subsidiaries" total Euros 3,150,840 thousand and refer to the investment in Olimpia S.p.A. (60 percent) which, as described in the report on operations, has been accounted for using the equity method. This amount includes goodwill that will be amortized over 20 years (Euros 49,538 thousand).

"Investments in associated companies" amount to Euros 115,559 thousand compared to Euros 86,491 thousand at December 31, 2000.

The increase is mainly due to the investment (21.8 percent) in the Belgian company Euroqube S.A. (Euros 18,530 thousand) and the acquisition of 30.3 percent of EpicLink S.p.A. (Euros 13,046 thousand).

The most important investments are as follows:

(in thousands of euros)	
Euroqube S.A.	18,530
Eurostazioni (ex-Schema Ventiquattro S.r.l.)	18,126
M.S.M.C. Holding B.V. (The Netherlands)	15,017
EpicLink S.p.A. (Italy)	13,046
Auriga S.p.A. (Italy)	10,684
Power Cables Malaysia Sdn Bhd (Malaysia)	10,339
Drathcord Saar & Co. K.G. (Germany)	5,736
Rodco Ltd. (United Kingdom)	4,284
Iniziative Immobiliari S.r.l. (Italy)	3,138
Kabeltrommel Gmbh & Co. K.G. (Germany)	2,810
SMP Melfi S.r.l. (Italy)	2,760
K.M.P. Cabos Especiais e Sistemas Ltda (Brazil)	2,251
I.N. Holding Italy S.a.r.l.	1,970
Auto Cable Tunisie	1,756
Inim Due S.a.r.l.	1,419
Regus Business Centre Italy S.p.A.	665
Progetto Bicocca La Piazza S.r.l. (Italy)	650
Other minor companies	2,378
	<b>115,559</b>

"Investments in other companies" can be summarized as follows

	(in thousands of euros)	
	12/31/2001	12/31/2000
Investments in Italian listed companies	204,238	250,372
Investments in Italian unlisted companies	78,981	32,727
Investments in foreign unlisted companies	32,351	38,175
	<b>315,570</b>	<b>321,274</b>

The decrease in "Investments in Italian listed companies" is mainly due to the disposal of the securities received in the acquisition of Unim (Euros 96,383 thousand), countered by the acquisition of the 1 percent stake in e.Biscom S.p.A. (Euros 48,819 thousand).

"Investments in Italian unlisted companies" include the purchase of a 2.3 percent stake in Consortium S.r.l. (Euros 19,517 thousand) and capital contributions to Tredicimarzo S.r.l. (Euros 14,000 thousand) and F.C. Internazionale Milano S.p.A. (Euros 12,395 thousand).

"Financial receivables from other companies due beyond one year" amount to Euros 74,893 thousand and include:

- Euros 5,591 thousand of fixed rate loans; the carrying value approximates fair value at the end of the year;
- Euros 44,760 thousand of interest-bearing fixed rate obligatory deposits;
- Euros 10,504 thousand of floating rate loans;
- Euros 4,999 thousand of non-interest bearing security deposits;
- Euros 9,039 thousand of non-interest bearing loans.

Receivables due beyond five years total Euros 44,975 thousand.

"Other securities" total Euros 14,247 thousand and decreased from 2000 (Euros 27,681 thousand). They include Fenera Holding S.p.A. bonds and investment securities of Pirelli Financial N.V. (Pirelli S.p.A. group).

"Treasury shares" consist of No. 2,617,500 ordinary shares, equal to 0.42 percent of share capital (0.44 percent of ordinary share capital).

As provided by art. 2357-ter of the Italian Civil Code, a "Reserve for treasury shares in portfolio" has been established for the same amount.

## C) Current assets

### I) Inventories

Inventories total Euros 1,363,453 thousand compared to Euros 1,522,685 thousand in the prior year, and can be analyzed as follows:

(in thousands of euros)		
	12/31/2001	12/31/2000
Pirelli S.p.A. group		
• Cables and Systems Sector	569,769	778,346
• Tyres Sector	455,756	453,620
• Other	1	2
Total Pirelli S.p.A. group	1,025,526	1,231,968
Pirelli & C. Real Estate S.p.A. group	346,029	308,261
• Other	(8.102)	(17.544)
	<b>1.363.453</b>	<b>1.522.685</b>

### II) Receivables

Receivables total Euros 2,729,563 thousand compared to Euros 3,057,574 thousand in the prior year, and can be analyzed as follows:

(in thousands of euros)				
	12/31/2001		12/31/2000	
	Financial	Trade and other	Financial	Trade and other
• Trade	-	1,784,613	-	1,868,776
• Subsidiaries	-	292	82	5,737
• Associated companies	1,336	22,553	2,205	26,153
• Other receivables	21,284	899,485	19,737	1,134,884
	<b>22,620</b>	<b>2,706,943</b>	<b>22,024</b>	<b>3,035,550</b>

- **trade receivables** from customers may be analyzed by due date as follows:

(in migliaia di euro)		
	12/31/2001	12/31/2000
due within 1 year	1,925,196	1,957,970
due beyond 1 year	19,382	3,971
allowance for doubtful receivables	(159,965)	(93,165)
	<b>1,784,613</b>	<b>1,868,776</b>

No receivables are due beyond five years.

The carrying value of receivables, adjusted for probable future losses, approximates estimated fair value at the end of the year.

- **receivables from associated companies** include financial receivables referring almost entirely to Drahtcord Saar & Co. of Euros 1,298 thousand (compared to Euros 2,081 thousand at December 31, 2000) consequent to transactions with Pirelli Deutschland A.G..

The most significant trade and other receivables refer to the associated companies of Pirelli & C. Real Estate S.p.A. of Euros 22,158 thousand (Euros 22,872 thousand at December 31, 2000) and BICCGeneral Baosheng Cables Co. Ltd. - Euros 1,433 thousand.

All amounts are receivable within one year.

- **other receivables** include financial receivables of Euros 21,284 thousand primarily consisting of receivables from banks on forward exchange and currency swap operations.

Trade and other receivables of Euros 899,485 thousand include the balance of deferred tax assets (Euros 155,672 thousand) and also amounts due from the tax authorities of Euros 438,634 thousand; receivables from the sale of fixed assets of Euros 17,492 thousand; advances to suppliers of Euros 41,302 thousand; receivables from employees of Euros 8,379 thousand and receivables from social security agencies, export refunds and other minor amounts of Euros 238,006 thousand.

The amount due beyond one year and within five years is Euros 199,810 thousand, while the amount due beyond five years is Euros 42,050 thousand.

### ***III) Current financial assets***

- **other investments** amount to Euros 20,700 thousand and consist of equity shares owned by Partecipazioni Real Estate S.p.A..
- **other securities** amount to Euros 562,110 thousand and consist of:
  - Euros 78,846 thousand of fixed rate securities issued and guaranteed by banking institutions;
  - Euros 113,973 thousand of floating rate securities issued and guaranteed by banking institutions;
  - Euros 182,075 thousand of bonds issued and guaranteed by primary issuers;
  - Euros 25,845 thousand of floating rate securities issued and guaranteed by governments of various nations;
  - Euros 59,101 thousand of equity securities intended for sale;
  - Euros 70,299 thousand of advance payments on the forward purchase of Olivetti 2001-2010 convertible bonds;
  - Euros 31,148 thousand for premiums paid on call options for the purchase of Olivetti S.p.A. ordinary shares or Olivetti S.p.A. 2001-2010 convertible bonds;
  - Euros 823 thousand of investments in mutual funds convertible into cash on demand.

The securities are held in safe-keeping at leading banking institutions.

#### ***IV) Cash and banks***

- **bank and postal deposits** are concentrated in the financial companies, holding companies and subholding companies of the Group. Available liquidity is mainly invested in the short-term deposit market at leading banking counterparts primarily at interest rates in line with market rates. The reduction in the balance from 2000 is principally due to the investments made in Olimpia S.p.A..

#### **D) Accrued income and prepaid expenses**

- **accrued income** decreased from Euros 121,878 thousand to Euros 37,652 thousand. The amount is determined on the accrual basis and mainly relates to hedging revenues, interest income, insurance, and other minor items.
- **prepaid expenses** increased from Euros 32,810 thousand to Euros 37,790 thousand and mainly refer to prepaid insurance, property rent and other minor items.

## LIABILITIES AND SHAREHOLDERS' EQUITY

### A) Shareholders' equity

#### *Of Pirelli & C.*

At December 31, 2001, share capital amounts to Euros 325,408,696.60 and consists of No. 591,367,698 ordinary shares and No. 34,418,257 savings shares, all with a par value of Euros 0.52 per share and normal dividend rights.

During 2001, No. 8,556,705 ordinary shares were issued against the conversion of the same number of 2.5% 1998-2003 bonds.

During the first months of the current year, another No. 1,478,872 ordinary shares were issued against the conversion of the same number of 2.5% 1998-2003 bonds.

The share premium reserve went from Euros 485,617 thousand to Euros 501,054 thousand following the aforementioned conversion of 2.5% 1998-2003 bonds.

The revaluation reserve ex Law No. 413/1991 and the reserve for treasury shares in portfolio have remained unchanged compared to December 31, 2000.

The legal reserve went from Euros 62,212 thousand to Euros 65,014 thousand subsequent to resolutions passed by the shareholders' meeting of May 10, 2001.

The changes in shareholders' equity are presented in the supplementary information.

#### *Minority interest*

The minority interest in shareholders' equity is Euros 3,288,687 thousand compared to Euros 3,672,662 thousand at December 31, 2000.

The change is primarily due to a larger stake held in Pirelli S.p.A. by Pirelli & C..

The main percentage investment held by the minority interest is as follows:

	12/31/2001	12/31/2000
Pirelli S.p.A.	59.87%	64.94%

### B) Provisions for liabilities and expenses

#### *Provisions for pensions and similar obligations*

These provisions include accruals for pensions, health care and other benefits in favor of employees, not governed by specific laws but covered by local labor agreements and benefit plans operating at some Group companies.



### *Provisions for income taxes*

The provisions for income taxes include accruals relating to income taxes likely to be incurred but uncertain as to the amount or as to the date on which they will arise, as well as deferred taxation, as follows:

	(in thousands of euros)	
	12/31/2001	12/31/2000
Provision for current taxes	41,731	30,033
Provision for deferred taxes	183,829	171,886
	<b>225,560</b>	<b>201,919</b>

The tax charge for the year is composed of the following:

	(in thousands of euros)	
	31/12/2001	31/12/2000
Current taxes	184,383	1,083,220
Deferred taxes	4,157	(9,061)
	<b>188,540</b>	<b>1,074,159</b>

The lower current income tax charge is substantially connected to the Cisco and Corning deals in the previous year.

The tax rates in the principal countries in which the Group operates are as follows:

Italy	40.25%	United States	40%
France	35.33%	Canada	43%-45%
Spain	35%	Australia	36%
Germany	38%	Argentina	35%
United Kingdom	30%	Brazil	34%
Turkey	33%	Venezuela	34%

### *Other provisions*

The movements during the year in other provisions are as follows:

	(in thousands of euros)		
	Restructuring	Other	Total
Balance at December 31, 2000	285,446	296,739	582,185
Translation adjustment	2,085	(688)	1,397
Utilization	(241,787)	(145,483)	(387,270)
Increase	152,617	52,335	204,952
Balance at December 31, 2001	198,361	202,903	401,264

Utilizations of the provision for restructuring costs were in respect of the Cables and Systems Sector for Euros 175,452 thousand and the Tyres Sector for Euros 58,225 thousand of the Pirelli S.p.A. Group and the Real Estate Sector for Euros 8,110 thousand

The balance of the provision relates to the Cables and Systems Sector for Euros 145,328 thousand, the Tyres Sector for Euros 30,397 thousand and the Real Estate Sector for Euros 22,189 thousand.

The increase in the provision for restructuring costs is mainly in reference to the reorganization plan for the industrial structures and the recent acquisitions.

The total of other provisions of Euros 202,903 thousand consists of accruals for litigation, industrial risks and claims, product warranties and other risks.

## D) Payables

Payables decreased from Euros 6,373,274 thousand to Euros 5,992,484 thousand and may be analyzed as follows:

(in thousands of euros)				
	12/31/2001		12/31/2000	
	Financial	Trade and other	Financial	Trade and other
Bonds	661,407	-	655,027	-
Convertible bonds	86,177	-	106,561	-
Bank borrowings	2,513,307	-	1,473,710	-
Other financial companies	155,308	-	450,773	-
Advances from customers	-	188,249	-	291,907
Trade	-	1,328,243	-	1,448,664
Associated companies	79	4,450	1,072	12,742
Subsidiaries	-	-	-	232
Taxes	-	531,591	-	1,242,716
Social security agencies	-	49,817	-	56,662
Other payables	3,369	470,487	3,828	629,380
	<b>3,419,647</b>	<b>2,572,837</b>	<b>2,690,971</b>	<b>3,682,303</b>

An analysis of payables by due date is as follows:

## Financial payables

(in thousands of euros)				
	12/31/2001		12/31/2000	
	within 1 year	beyond 1 year	within 1 year	beyond 1 year
Bonds	4	661,403	4	655,023
Convertible bonds	2,102	84,075	2,600	103,961
Bank borrowings	1,456,202	1,057,105	435,670	1,038,040
Other financial companies	96,200	59,108	395,441	55,332
Associated companies	79	-	1,072	-
Other payables	3,369	-	3,828	-
	<b>1,557,956</b>	<b>1,861,691</b>	<b>838,615</b>	<b>1,852,356</b>

Financial payables are secured by liens and mortgages for Euros 63,725 thousand.  
Financial payables due beyond five years total Euros 593,946 thousand.

Additional disclosure is provided as follows:

### **Bonds**

	Non-convertible		Convertible		(in thousands of euros) Pirelli S.p.A. shares to be issued in the event of early redemption Number
	within 1 year	beyond 1 year	within 1 year	beyond 1 year	
Pirelli & C. (Italy)					
Lire 287.9 billion					
1998-2003					
2.5% convertible					
Pirelli & C. shares	-	-	2,102	84,075	36,175,719
Pirelli S.p.A. (Italy)					
Euro 500 million					
1998-2008 4.875%		500,000			
Unredeemed bonds	4	-	-	-	-
Pirelli & C. Luxembourg S.A.					
Euros 150 million					
1999-2009 5.125%		161,403			
<b>Total</b>	<b>4</b>	<b>661,403</b>	<b>2,102</b>	<b>84,075</b>	<b>36,175,719</b>

Convertible bonds total Euros 84.1 million and refer to the residual amount of the 2.5% 1998-2003 bonds originally issued for Lire 287.9 billion (Euros 148.7 million), authorized by a resolution passed at the extraordinary shareholders' meeting of Pirelli & C. on May 22, 1998.

### **Bank borrowings**

Bank borrowings due within one year amount to Euros 1,456,202 thousand and include the current portion of long-term debt for Euros 39,961 thousand.

Bank borrowings due beyond one year amount to Euros 1,057,105 thousand and consist of floating rate loans for Euros 780,089 thousand and fixed rate loans for Euros 277,016 thousand.

### **Payables to other financial companies**

The amount due beyond one year includes Euros 36,933 thousand payable beyond five years.

## Trade and other payables

(in thousands of euros)

	12/31/2001		12/31/2000	
	within 1 year	beyond 1 year	within 1 year	beyond 1 year
Advances from customers	188,249	-	291,907	-
Trade	1,310,725	17,518	1,417,909	30,755
Subsidiaries	-	-	232	-
Associated companies	4,450	-	12,375	367
Taxes	451,452	80,139	1,159,307	83,409
Social security agencies	49,817	-	56,662	-
Other payables	436,485	34,002	556,597	72,783
	<b>2,441,178</b>	<b>131,659</b>	<b>3,494,989</b>	<b>187,314</b>

### *Payables to associated companies*

As regards trade payables, the most significant amounts refer to Drahtcord Saar GmbH & Co. KG (Euros 2,244 thousand) and Corecom (Euros 700 thousand).

### *Taxes payable*

The decrease in taxes payable is principally due to the payment of taxes on the extraordinary sales transactions regarding the Terrestrial Optical Systems and the Optical Components businesses.

### *Other payables*

These amount to Euros 470,487 thousand and include payables to employees for Euros 88,180 thousand, security deposits from customers for packaging for Euros 24,514 thousand, legal and consulting fees for Euros 9,368 thousand, purchases of fixed assets and urbanization fees for Euros 99,528 thousand, notes payable for Euros 42,767 thousand and other minor items for the difference.

## E) Accrued liabilities and deferred income

### *- Accrued liabilities*

Accrued liabilities went from Euros 343,580 thousand to Euros 238,314 thousand and include the portion of exchange differences on hedging transactions, interest expense, property leases payable, hedging costs and other minor items.

### *- Deferred income*

Deferred income went from Euros 36,757 thousand to Euros 43,955 thousand and refers to rent income paid in advance and insurance premiums.

## MEMORANDUM ACCOUNTS

Memorandum accounts total Euros 3,293,207 thousand compared to Euros 1,215,048 thousand in the prior year.

### *Personal guarantees*

"Sureties on behalf of other companies" are mainly to guarantee loans received and guarantees against job orders in the process of being delivered or tested.

The amount also includes Euros 50,015 thousand of bank guarantees of the subsidiary Pirelli & C. Opere Generali S.p.A. given to the City of Milan to guarantee performance of works to be realized and to be deducted from the urbanization fees.

### *Third party assets held in deposit*

"Securities held in deposit" include securities stated at par value, owned by third parties and held in deposit by Pirelli S.p.A., in addition to securities entrusted for administration.

### *Assets held by third parties*

"Securities held as guarantees and sureties" include Euros 27,214 thousand for the equivalent amount of the equity swap operation by Pirelli & C. Real Estate S.p.A. on the securities portfolio, the possession of which has been temporary transferred to the related counterparts, and the Auriga Immobiliare S.r.l. quotas held by Pirelli & C. Real Estate S.p.A. and pledged in favor of the banks for the loan granted to the associated company.

"Shares owned by the company held in deposit" are in safekeeping.

### *Commitments*

The "nominal value of the put options given to third parties" refer to the nominal value of options given by Pirelli S.p.A. to IntesaBci S.p.A. (Euros 520,000 thousand), Unicredito Italiano S.p.A. (Euros 520,000 thousand) and Edizione Holding S.p.A. (Euros 1,040,000 thousand) relating to the investment which they hold in Olimpia S.p.A., as described in the report on operations.

This item also includes the nominal value of the option given to Cisco Systems on the Pirelli Submarine Telecom Systems Holding B.V. shares which it holds.

This amount is already shown in the financial statements under the minority interest in shareholders' equity.

"Commitments for the purchase of equity investments" include the amount (valued at the issue price) to be paid to the employees and associates of the Pirelli & C. Real Estate Group for the repurchase of No. 25,713 Pirelli & C. Real Estate shares covered by the stock option plans described in the 2000 financial statements.

"Securities to be delivered" relate to the amount fixed by contract with the counterparts Morgan Stanley and Merrill Lynch for the equity swap operation described above.

### ***Other memorandum accounts***

This refers to the forward securities purchase (expiration date of November 23, 2006) of No. 200,000,000 Olivetti 2001-2010 convertible bonds effected with Credit Agricole Lazard Financial Products Bank as described in the report on operations.

### **Financial instruments**

It is the Group's policy to reduce financial risks deriving from international activities conducted in research, manufacturing and distribution through operating and financial management decisions.

To this end, the Group uses forward exchange contracts and derivatives to protect its operating results from unfavorable fluctuations in exchange and interest rates and the prices of raw materials. With an overall view towards reducing exposure to risk the Group deals exclusively with leading bank counterparts and in highly liquid instruments.

The following table gives a description of the financial derivative contracts in the major currencies:

	(in thousands of euros)			
	Gross notional amounts (at year-end exchange rates)	Fair value	Maturing within one year	Maturing beyond one year
<b>Exchange rate risk</b>				
- Forward contracts	4,168	3,580	3,543	38
- Swap contracts	98	2	2	-
- Futures contracts	5	15	15	-
<b>Interest rate risk</b>				
- Forward rate agreement	-	1	1	-
- Interest rate swaps	36	41	41	-
<b>Raw materials price risk</b>				
- Futures contracts	22	2	2	-

The fair value of the financial instruments used to hedge exchange, interest rate and materials price risks approximates the fair value of the positions being hedged.

## CONSOLIDATED STATEMENTS OF INCOME

### A) Production value

#### *Revenues from sales and services*

The distribution of sales by geographical area of destination and industry sector are reported in the following table.

(In thousands of euros)				
	2001		2000	
Geographical area				
Italy	1,422,719	18.33%	1,003,848	13.04%
Other European countries	3,377,174	43.51%	3,279,349	42.61%
North America	1,017,876	13.11%	1,209,675	15.72%
Central and South America	904,938	11.66%	1,230,545	15.99%
Oceania, Africa and Asia	1,039,278	13.39%	973,150	12.64%
Total	7,761,985	100.00%	7,696,567	100.00%
Sector				
Pirelli S.p.A. group				
- Cables and Systems	4,687,938	60.40%	4,591,108	59.65%
- Tyres	2,831,171	36.47%	2,880,380	37.42%
- Other and interelimination	(9,889)	(0.13%)	5,183	0.07%
Total Pirelli S.p.A. Group	7,509,220	96.74%	7,476,671	97.14%
Pirelli & C Real Estate S.p.A. group	267,156	3.44%	213,032	2.77%
Other and interelimination	(14,391)	(0.18%)	6,864	0.09%
Total	7,761,985	100.00%	7,696,567	100.00%

#### *Other revenues and income*

The caption "miscellaneous" includes the supply agreement with Cisco Systems, rent income, commissions, insurance indemnities and refunds, gains from the ordinary disposal of property, plant and equipment and other minor items.

### B) Production costs

#### *Service expenses*

Service expenses total Euros 1,314,288 thousand and include selling expenses (Euros 385,578 thousand), electrical power (Euros 162,620 thousand), advertising (Euros 129,938 thousand), ordinary maintenance (Euros 81,628 thousand), costs relating to construction of buildings (Euros 77,454 thousand), consulting fees (Euros 64,995 thousand), EDP expenses (Euros 46,633 thousand), insurance (Euros 41,826 thousand), outside processing costs (Euros 35,678 thousand), building management expenses (Euros 17,123 thousand) and other minor expenses.

#### *Lease and rent expenses*

Lease and rent expenses mainly consist of rent expenses of Euros 56,527 thousand, operating lease installments of Euros 16,128 thousand and patent utilization rights of Euros 12,926 thousand.

### ***Personnel costs***

Personnel costs consist of the following:

	(in thousands of euros)	
	2001	2000
Salaries and wages	1,203,565	1,266,507
Social security costs	259,197	267,822
Leaving indemnity	41,464	35,739
Pension and similar costs	21,898	22,481
Other costs	23,620	30,990
	<b>1,549,744</b>	<b>1,623,539</b>

### ***Amortization, depreciation and writedowns***

The depreciation charge for property, plant and equipment may be analyzed as follows:

	(in thousands of euros)	
	2001	2000
Buildings	32,668	33,073
Plant and machinery	212,439	225,203
Commercial and industrial equipment	41,482	44,764
Other assets	38,977	38,785
	<b>325,566</b>	<b>341,825</b>

The writedown of receivables, of Euros 79,945 thousand, includes Euros 68 million of accruals for doubtful receivables in respect of specific insolvent positions in the Cables and Systems Sector.

### ***Other operating expenses***

Other operating expenses went from Euros 231,680 thousand to Euros 235,224 thousand and include administrative expenses (Euros 21,992 thousand), travel expenses (Euros 68,777 thousand), revenue stamps and local taxes (Euros 33,379 thousand), losses on the disposal of property, plant and equipment (Euros 8,360 thousand), legal fees (Euros 11,140 thousand), association dues (Euros 8,278 thousand), entertainment, audit and other minor items.

## **C) Financial income and expenses**

### ***Investment income***

Investments income includes:

	(in thousands of euros)	
	2001	2000
Dividends from subsidiaries	1,117	1,421
Dividends from associated companies	-	394
Dividends from other companies	10,315	12,479
Other income	744	54
	<b>12,176</b>	<b>14,348</b>

Other income refers to gains on the sale of securities.



### *Other financial income*

“Income other than the above” consists of the following:

	(in thousands of euros)	
	2001	2000
Interest from subsidiaries	2	545
Interest from jointly controlled subsidiaries	75	-
Interest from associated companies	13,623	9,904
Bank interest	190,339	119,998
Other interest	3,154	4,386
Miscellaneous financial income	36,174	53,809
Gains on exchange	217,651	117,623
	<b>461,018</b>	<b>306,265</b>

**Miscellaneous** financial income includes revenues on forward exchange contracts, gains on the sale of fixed rate securities, interest on receivables to be collected from the tax authorities and other minor items.

### *Interest and other financial expenses*

These expenses include:

	(in thousands of euros)	
	2001	2000
Interest to associated companies	102	2,316
Bond interest	34,262	35,683
Bank interest	152,560	153,927
Miscellaneous financial expenses	101,717	130,100
Losses on exchange	226,742	128,972
	<b>515,383</b>	<b>450,998</b>

**Miscellaneous financial expenses** include costs on forward exchange contracts, losses on the sale of fixed rate securities, bank commissions, etc..

Financial expenses, net, excluding amounts not directly associated with receivables and payables, amount to Euros 45,274 thousand.

### **D) Valuation adjustments to financial assets**

Revaluations (Euros 9,951 thousand) mainly comprise the share of the results of the associated companies of Pirelli & C. Real Estate S.p.A. accounted for using the equity method (Euros 9,908 thousand).

Writedowns (Euros 41,517 thousand) include Euros 7,057 thousand for the share of the losses of the associated companies of Pirelli & C. Real Estate S.p.A. accounted for using the equity method, Euros 19,312 thousand for the share of the loss of the

company Olimpia S.p.A. accounted for using the equity method and Euros 15,148 thousand for the writedowns of investments in other companies (of which F.C. Internazionale Milano S.p.A. is for Euros 12,583 thousand and Superga S.p.A. for Euros 998 thousand).

## **E) Extraordinary items**

### ***Extraordinary income***

Extraordinary income totals Euros 425,670 thousand compared to Euros 5,633,530 thousand in the prior year, and can be analyzed as follows:

	(in thousands of euros)	
	2001	2000
Gains on disposals	294,596	121,212
Miscellaneous	131,074	5,512,318
	<b>425,670</b>	<b>5,633,530</b>

"Gains on disposal" mainly include the gain on the securities relating to the partial disposal of the securities hedged in the equity swap in the portfolio of Pirelli & C. Real Estate S.p.A. (Euros 178,589 thousand), the gain on the sale of Pirelli S.p.A. treasury shares on the market (Euros 30,285 thousand) and the gains on the sales of real estate property by the Cables and Systems Sector (Euros 72,102 thousand).

"Miscellaneous" principally includes an earn-out of Euros 70,497 thousand on the closing of last year agreements with Cisco Systems for the sale of the Terrestrial Optical Systems business last year, the price adjustment with BICC of Euros 16,626 thousand for the activities purchased, the gain of Euros 5,927 thousand from the reimbursement of part of the share capital of Pirelli Società Generale S.A. - Basel, income of Euros 11,000 thousand for higher tax credits on dividends received in 2001 and, the remaining amount refers to insurance indemnities, sundry refunds and other items.

Last year, "miscellaneous" mainly included the pretax gains on the sales of the Terrestrial Optical Systems business to Cisco and the Optical Components business to Corning.

### ***Extraordinary expenses***

Extraordinary expenses amount to 270,075 thousand compared to Euros 1,112,168 thousand in the prior year, and may be analyzed as follows:

	(in thousands of euros)	
	2001	2000
Losses on disposals	1,127	47,582
Miscellaneous	268,948	1,064,586
	<b>270,075</b>	<b>1,112,168</b>

"Miscellaneous" mainly includes restructuring costs relating to the industrial structure (Euros 151 million) and Euros 11 million for costs relating to the sale of real estate properties by the Cables and Systems Sector.

## OTHER INFORMATION

### Directors' and statutory auditors' fees

Fees to the directors and statutory auditors of Pirelli & C., who also carry out these functions in other companies included in consolidation, are as follows:

	(in thousands of euros)
Directors	20,208
Statutory auditors	230
	<hr/> 20,438

### *Employees*

At December 31, 2001, the average number of employees, by category, in companies included in consolidation is as follows:

- senior executives	726
- staff	11,092
- blue collar	26,430
- temporary employment	2,879
	<hr/> 41,127

### Exchange rates

The main exchange rates used in the consolidated financial statements are as follows:

	(local currency against euros)					
	Year-end		Change	Average		Change
	2001	2000	in %	2001	2000	in %
<b>Europa</b>						
Italian lira	1,936.27	1,936.27	0.00%	1,936.27	1,936.27	0.00%
German mark	1.95583	1.95583	0.00%	1.95583	1.95583	0.00%
Dutch guilder	2.20371	2.20371	0.00%	2.20371	2.20371	0.00%
French franc	6.55957	6.55957	0.00%	6.55957	6.55957	0.00%
Spanish peseta	166.386	166.386	0.00%	166.386	166.386	0.00%
Belgian franc	40.3399	40.3399	0.00%	40.3399	40.3399	0.00%
British pound	0.6085	0.6241	(2.50%)	0.62172	0.60946	2.01%
Swiss franc	1.4829	1.5232	(2.65%)	1.5102	1.5577	(3.05%)
Hungarian forint	245.1800	263.8400	(7.07%)	256.5446	260.0502	(1.35%)
Slovakian koruna	42.2610	43.4897	(2.83%)	43.2811	42.7079	1.34%
Greek drachma	340.750	340.750	0.00%	340.7500	336.6520	1.22%
<b>North America</b>						
American dollar	0.8813	0.9305	(5.29%)	0.8954	0.9237	(3.06%)
Canadian dollar	1.4077	1.3965	0.80%	1.3865	1.3709	1.14%
<b>South America</b>						
Brazilian real	2.0450	1.8195	12.39%	2.1062	1.6899	24.63%
Argentine peso	0.8813	0.9305	(5.29%)	0.8954	0.9237	(3.06%)
<b>Oceania</b>						
Australian dollar	1.7280	1.6770	3.04%	1.7320	1.5894	8.97%
<b>Asia</b>						
Chinese RMB	7.2942	7.7021	(5.30%)	7.3827	7.6454	(3.44%)
Singapore dollar	1.6269	1.6130	0.86%	1.6048	1.5913	0.85%
Indian rupiah	9,121.0000	8,956.0000	1.84%	9,165.0000	7,746.0000	18.32%
<b>Africa</b>						
Egyptian pound	4.019	3.610	11.31%	3.6236	3.2637	11.03%
Ivory Coast franc	655.957	655.957	0.00%	655.9570	655.9570	0.00%

### *Net financial position*

The composition of the net financial position presented below, and the change compared to December 31, 2000, are commented in the introduction to the report:

	(in thousands of euros)	
	12/31/2001	12/31/2000
Short-term financial payables	1,557,956	838,615
Accrued interest expenses	12,549	25,333
Cash and banks	(471,386)	(3,732,150)
Other securities and investments held in current financial assets	(562,110)	(1,246,737)
Short-term financial receivables	(258,333)	(42,248)
Accrued interest income	(9,577)	(16,373)
<b>Net short-term (liquidity) debt</b>	<b>269,099</b>	<b>(4,173,560)</b>
Medium/long-term financial payables	1,861,691	1,852,356
Medium/long-term financial receivables	(89,564)	(305,156)
Other securities	(11,665)	(8,572)
<b>Net medium/long-term debt</b>	<b>1,760,462</b>	<b>1,538,628</b>
<b>Net financial (liquidity) debt position</b>	<b>2,029,561</b>	<b>(2,634,932)</b>

### *R & D expenditures*

In 2001, the Group, through the subsidiary Pirelli S.p.A., incurred research and development expenditures and technical management costs for a total of Euros 237 million, entirely charged to operating expenses, compared to Euros 313 million in the prior year. Expenditures represented 3.2 percent of consolidated sales revenues compared to 2.8 percent in the prior year.

The geographical breakdown of these expenditures is as follows:

Europe	91%
North America	4%
South America	5%

A number of research programs are subsidized by the governments of various countries. In particular, in Italy, where the research activities are mainly concentrated, the projects financed under the various laws are numerous and apply, in differing proportions, to all sectors of activity.

**SUPPLEMENTARY INFORMATION**  
**CONSOLIDATED FINANCIAL STATEMENTS AT DECEMBER 31, 2001**

## CONSOLIDATED STATEMENTS OF CASH FLOWS

	(in thousands of euros)	
	2001	2000
<b>Net cash flows</b>		
Operating profit	296,525	431,521
Depreciation and amortization	407,735	418,093
Investment in intangible assets	(97,179)	(93,077)
Investment in property, plant and equipment	(646,218)	(569,566)
Investment in financial assets	(3,648,052)	(683,231)
Disposal of intangible assets	2,786	5,269
Disposal of property, plant and equipment	33,682	27,570
Disposal of financial assets	125,446	132,176
Changes in inventories	159,232	(76,603)
Changes in trade and other accounts receivable/payable	(167,773)	63,060
Changes in provisions	(35,218)	(57,668)
Other changes	21,556	(26,544)
<b>Free cash flows</b>	<b>(3,547,478)</b>	<b>(429,000)</b>
Financial income/expenses, net	(69,368)	(119,440)
Income taxes, net	(188,540)	(1,074,159)
Extraordinary items, net	155,595	4,521,362
Other changes	(712,817)	1,373,558
<b>Cash flows before dividends</b>	<b>(4,362,608)</b>	<b>4,272,321</b>
Dividends paid	(328,906)	(154,650)
<b>Net cash flows</b>	<b>(4,691,514)</b>	<b>4,117,671</b>
Share capital increase Pirelli & C.	19,886	44,559
Share capital increase Pirelli S.p.A.	29,158	5,138
Share capital increase minority interest	6,080	82,543
<b>Changes in share capital</b>	<b>55,124</b>	<b>132,240</b>
Translation adjustments	(28,103)	(17,976)
<b>Net increase (decrease) in cash</b>	<b>(4,664,493)</b>	<b>4,231,935</b>
<b>Net liquidity (debt) at beginning of the year</b>	<b>2,634,932</b>	<b>(1,597,003)</b>
<b>Net liquidity (debt) at end of the year</b>	<b>(2,029,561)</b>	<b>2,634,932</b>

**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY FOR THE YEARS ENDED DECEMBER 31, 2000 AND 2001**

(in thousands of euros)

	Share capital	Share premium reserve	Legal reserve	Cumulative translation adjustments	Other reserves* Retained earnings Net income	Total
<b>BALANCE AT DECEMBER 31, 1999</b>	<b>310,989</b>	<b>451,028</b>	<b>61,773</b>	<b>28,281</b>	<b>(43,546)</b>	<b>808,525</b>
Appropriation of net income (shareholders' resolution of May 11, 1999)						
- Payment of dividends	-	-	-	-	(37,284)	(37,284)
- Legal reserve	-	-	439	-	(439)	-
Conversion of bonds 1998/2003	9,970	34,589	-	-	-	44,559
Adjustments to net equities of subsidiaries and associated companies	-	-	-	-	(20,278)	(20,278)
Translation adjustment and other changes	-	-	-	(28,921)	-	(28,921)
Net income for the year	-	-	-	-	1,404,660	1,404,660
<b>BALANCE AT DECEMBER 31, 2000</b>	<b>320,959</b>	<b>485,617</b>	<b>62,212</b>	<b>(640)</b>	<b>1,303,113</b>	<b>2,171,261</b>
Appropriation of net income (shareholders' resolution of May 11, 2000)						
- Payment of dividends	-	-	-	-	(128,907)	(128,907)
- Legal reserve	-	-	2,802	-	(2,802)	-
Conversion of bonds 1998/2003	4,449	15,437	-	-	-	19,886
Adjustments to net equities of subsidiaries and associated companies	-	-	-	-	(13,154)	(13,154)
Translation adjustment and other changes	-	-	-	(55,336)	-	(55,336)
Net income for the year	-	-	-	-	124,955	124,955
<b>BALANCE AT DECEMBER 31, 2001</b>	<b>325,408</b>	<b>501,054</b>	<b>65,014</b>	<b>(55,976)</b>	<b>1,283,205</b>	<b>2,118,705</b>

\* Other reserves include the revaluation reserve and the reserve for treasury shares in portfolio.



**RECONCILIATION OF NET RESULTS AND SHAREHOLDERS' EQUITY  
OF PIRELLI & C. A.p.A. AND THE CORRESPONDING CONSOLIDATED FIGURES  
OF THE GROUP AT DECEMBER 31, 2001**

	(in thousands of euros)	
	Net income	Shareholders' equity
<b>Pirelli &amp; C. A.p.A. financial statements</b>	<b>148,387</b>	<b>1,194,513</b>
Share of earnings of:		
- consolidated subsidiaries	202,239	202,239
- companies valued using the equity method	(10,125)	(10,125)
Elimination of dividends received from subsidiaries	(188,560)	(188,560)
Elimination of gains on the sale of intergroup fixed assets	(370)	(370)
Elimination of gains on intergroup sales	2,380	2,380
Amortization of goodwill	(28,996)	(28,996)
Difference between share of net equity of consolidated companies and their carrying value::		
- consolidated subsidiaries	-	940,828
- associated companies accounted for using the equity method	-	6,796
<b>Group consolidated financial statements</b>	<b>124,955</b>	<b>2,118,705</b>

## COMPANIES CONSOLIDATED USING THE FULL CONSOLIDATION METHOD

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
<b>EUROPE</b>						
<b>AUSTRIA</b>						
Pirelli Gesellschaft mbH	Tyres	Vienna	Aust. Sch./000	10,000	100.00%	Lunares S.A.
Pirelli-Oekw GmbH	Cables and Systems	Vienna	Euro	2,071,176	100.00%	Pirelli Cable Holding N.V.
<b>BELGIUM</b>						
Pirelli Tyres Belux S.A.	Tyres	Brussels	Euro	700,000	100.00%	Lunares S.A.
<b>FINLAND</b>						
Pirelli Cables and Systems OY	Cables and Systems	Helsinki	Euro	10,000,000	100.00%	Pirelli Cable Holding N.V.
<b>FRANCE</b>						
Eurelectric S.A.	Cables and Systems	La Bresse	Euro	4,036,500	100.00%	Pirelli Energie Câbles et Systèmes France S.A. (già Pirelli Câbles et Systèmes S.A.)
Pirelli Moto France S.A.S. (formerly SMI S.A.S.)	Tyres	Gonesse	Euro	77,000	100.00%	Metzeler Reifen GMBH
Pirelli Energie Câbles et Systèmes France S.A. (formerly Pirelli Câbles et Systèmes S.A.)	Energy Cables and Systems	Paron	Euro	136,800,000	100.00%	Pirelli Cable Holding N.V.
Pirelli Telecom Câbles et Systèmes France S.A. (formerly Superent S.A.)	Telecom Cables and Systems	Bagnolet Cedex	Euro	16,295,000	100.00%	Pirelli Cavi e Sistemi Telecom S.p.A.
Pneus Pirelli S.A.	Tyres	Puteaux	Euro	3,062,400	100.00%	Lunares S.A.
Superent Bis France S.A. (formerly Pirelli Telecom Câbles et Systèmes France S.A.)	Energy Cables and Systems	Bagnolet Cedex	Euro	40,000	100.00%	Pirelli Energie Câbles et Systèmes France S.A. (già Pirelli Câbles et Systèmes S.A.)
<b>GERMANY</b>						
Bergmann Kabel und Leitungen GmbH	Energy Cables and Systems	Schwerin	Euro	1,022,600	100.00%	Pirelli Kabel und Systeme Holding GmbH
Deutsche Pirelli Reifen Holding GmbH	Financial	Breuberg/Odenwald	Euro	7,694,943	100.00%	Pirelli Tyre Holding N.V.
ISO Industrie Spedition Odenwald GmbH	Tyres	Breuberg/Odenwald	Euro	25,565	100.00%	Pirelli Reifenwerke GmbH & Co. K.G.
Materialverwertungsgesellschaft Breuberg GmbH	Tyres	Breuberg/Odenwald	Euro	25,565	100.00%	Deutsche Pirelli Reifen Holding GmbH
Metzeler Reifen GmbH	Tyres	Breuberg/Odenwald	Euro	16,361,340	100.00%	Pirelli Deutschland A.G.
Pirelli Deutschland A.G.	Tyres	Breuberg/Odenwald	Euro	26,075,886	99.07%	Deutsche Pirelli Reifen Holding GmbH
Pirelli Kabel Grundstücksverwaltungs GmbH	Energy Cables and Systems	Berlin	Euro	25,600	100.00%	Pirelli Kabel und Systeme Holding GmbH
Pirelli Kabel und Systeme Beteiligungs GmbH	Energy Cables and Systems	Berlin	Euro	25,600	100.00%	Pirelli Kabel und Systeme Holding GmbH
Pirelli Kabel und Systeme GmbH & Co. KG	Energy Cables and Systems	Berlin	Euro	5,113,000	100.00%	Pirelli Kabel und Systeme Beteiligungs GmbH
Pirelli Kabel und Systeme Holding GmbH	Energy Cables and Systems	Berlin	Euro	26,000	99.00%	Pirelli Cable Holding NV
					1.00%	Pirelli Cavi e Sistemi Energia S.p.A.
Pirelli Kabel und Systeme Verwaltungs GmbH	CEnergy Cables and Systems	Berlin	Euro	25,600	100.00%	Pirelli Kabel und Systeme Beteiligungs GmbH
Pirelli Reifenwerke Geschäftsführungs GmbH	Service	Breuberg/Odenwald	Euro	25,565	100.00%	Deutsche Pirelli Reifen Holding GmbH
Pirelli Reifenwerke GmbH & Co. K.G.	Tyres	Breuberg/Odenwald	Euro	35,790,943	100.00%	Pirelli Deutschland A.G.
Pirelli Telekom Kabel und Systeme Deutschland GmbH	Telecom Cables and Systems	Berlin	Euro	25,000	100.00%	Pirelli Cavi e Sistemi Telecom S.p.A.
Pneumobil GmbH	Tyres	Breuberg/Odenwald	Euro	259,225	99.62%	Pirelli Reifenwerke GmbH & Co. K.G.
Veith Wohnungsbau GmbH	Real Estate	Breuberg/Odenwald	Euro	127,823	100.00%	Pirelli Deutschland A.G.

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
<b>UNITED KINGDOM</b>						
Aberdare Cables Ltd	Energy Cables and Systems	London	British Pound	609,654	100.00%	Pirelli General plc
Pirelli Telecom Cables and Systems UK Limited (formerly ACAF Ltd)	Telecom Cables and Systems	London	British Pound	100,000	100.00	Pirelli General plc
Central Tyre Ltd	Tyres	London	British Pound	100,000	100.00%	Pirelli UK Tyres Ltd
Conergy Ltd	Cables and Systems	London	British Pound	1,000,000	100.00%	Pirelli & C Luxembourg S.A.
Courier Tyre Company Ltd	Tyres	London	British Pound	10,000	100.00%	Pirelli UK Tyres Ltd
CPK Auto Products Ltd	Tyres	London	British Pound	10,000	100.00%	Pirelli UK Tyres Ltd
CTC 1994 Limited	Tyres	London	British Pound	984	100.00%	Centrale Tyre Ltd
Pirelli & C. Real Estate Ltd	Real estate	London	Euro	100,000	100.00%	Pirelli & C. A.p.A.
Pirelli Cables (2000) Limited	Energy Cables and Systems	London	British Pound	118,653,473	100.00%	Pirelli General plc
Pirelli Cables (Industrial) Limited	Energy Cables and Systems	London	British Pound	9,010,935	100.00%	Pirelli General plc
Pirelli Cables (Supertension) Ltd.	Energy Cables and Systems	London	British Pound	5,000,000	100.00%	Pirelli General plc
Pirelli Cables and Systems International Ltd	Energy Cables and Systems	London	Euro	100,000	100.00%	Pirelli Cable Holding N.V.
Pirelli Cables Ltd	Energy Cables and Systems	London	British Pound	100,000	100.00%	Pirelli General plc
Pirelli Construction Company Ltd	Energy Cables and Systems	London	British Pound	8,000,000	100.00%	Pirelli General plc
Pirelli Focom Limited	Energy Cables and Systems	London	British Pound	6,447,000	100.00%	Pirelli General plc
Pirelli General plc	Cables and Systems	London	British Pound	102,100,000	100.00%	Pirelli UK plc "B1"/"B2"
Pirelli International Limited	Financial	London	Euro	250,000,000	100.00%	Pirelli Finance (Luxembourg) S.A.
Pirelli Metals Ltd (formerly Pirelli Cables (Rod Rollers) Limited)	Energy Cables and Systems	London	British Pound	100,000	100.00%	Pirelli General plc
Pirelli Tyres Ltd	Tyres	London	British Pound	16,000,000	100.00%	Pirelli UK Tyres Ltd
Pirelli UK Employee Share Trustee Limited	Financial	London	British Pound	2	100.00%	Pirelli UK plc "C"
Pirelli UK Finance Ltd	Financial	London	British Pound	6,969,280	100.00%	Pirelli UK plc "C"
Pirelli UK plc "A"	Tyre Holding Company	London	British Pound	57,354,300	100.00%	Pirelli Tyre Holding N.V.
Pirelli UK plc "B1"	Cable Holding Company	London	British Pound	27,149,529	100.00%	Pirelli Cable Holding N.V.
Pirelli UK plc "B2"	Telecom Cables and System Holding Company	London	British Pound	27,149,529	100.00%	Pirelli Cavi e Sistemi Telecom S.p.A.
Pirelli UK plc "C"	Finance Holding Company	London	British Pound	11,625,978	100.00%	Pirelli S.p.A.
Pirelli UK Tyres Ltd	Tyres	London	British Pound	56,819,000	100.00%	Pirelli UK plc "A"
<b>GREECE</b>						
Antem Representations & Trading Co. Ltd. (in liquidation)	Tyres	Athens	Gr. Drachma	1,000,000	100.00%	Pirelli Hellas S.A.
Diafimis Roda Ltd (in liquidation)	Advertising	Athens	Gr. Drachma	3,000,000	99.33%	Elastika Pirelli S.A.
					0.33%	Antem Repr. & Trading Co. Ltd
Elastika Pirelli S.A.	Tyres	Athens	Euro	1,632,010	99.90%	Lunares S.A.
					0.10%	Pirelli Pneumatici Holding S.p.A.
Pirelli Hellas S.A. (in liquidation)	Tyres	Athens	US \$	22,050,000	79.86%	Pirelli Tyre Holding N.V.

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
ITALY						
Acquario S.r.l. (in liquidation)	Real estate	Genoa	Euro	255,000	100.00%	Pirelli & C. Real Estate S.p.A.
Alfa S.r.l.	Real estate	Milan	Euro	2,600,000	100.00%	Pirelli & C. Real Estate S.p.A.
Alfa Due S.p.A.	Real estate	Milan	Euro	1,300,000	100.00%	Pirelli & C. Real Estate S.p.A.
Altofin S.r.l.	Financial	Milan	Euro	78,000	100.00%	Pirelli & C.A.p.A.
Beta S.r.l.	Real estate	Milan	Euro	26,000	100.00%	Pirelli & C. Real Estate S.p.A.
Cagisa S.p.A.	Real estate	Milan	Euro	624,000	100.00%	Pirelli & C. Property Management S.p.A.
Centrale Immobiliare S.p.A.	Real estate	Milan	Euro	5,200,000	100.00%	Pirelli & C. Real Estate S.p.A.
Centro Servizi Amministrativi Pirelli S.r.l.	Service	Milan	Euro	51,000	100.00%	Pirelli S.p.A.
Fibre Ottiche Sud - F.O.S. S.p.A.	Optical	Battipaglia (SA)	Euro	5,200,000	100.00%	Pirelli Cavi e Sistemi Telecom S.p.A.
Fintheta S.p.A.	Real estate	Milan	Euro	255,000	100.00%	Pirelli S.p.A.
Holdim S.r.l.	Real estate	Milan	Euro	14,404	100.00%	Pirelli & C. Real Estate S.p.A.
Istituto Piero Pirelli S.p.A. (in liquidation)	Training	Milan	Euro	135,000	100.00%	Pirelli S.p.A.
Kallithea S.r.l. (formerly Kallithea S.p.A.)	Real estate	Milan	Euro	10,400	100.00%	Pirelli S.p.A.
Kappa S.r.l.	Real estate	Milan	Euro	10,400	100.00%	Pirelli & C. Real Estate S.p.A.
Iota S.r.l.	Real estate	Milan	Euro	93,600	100.00%	Pirelli & C. Real Estate S.p.A.
Lambda S.r.l.	Real estate	Milan	Euro	624,000	100.00%	Pirelli & C. Real Estate S.p.A.
Localto S.p.A.	Financial	Milan	Euro	5,200,000	100.00%	Pirelli & C.A.p.A.
Maristel S.p.A.	Telecom Cables and Systems	Milan	Euro	1,020,000	100.00%	Pirelli Cavi e Sistemi Telecom S.p.A.
Neri Comme & C. S.r.l. (in liquidation)	Tyres	Milan	Lire	20,000,000	100.00%	Sistema Puntogomme S.p.A.
Partecipazioni Real Estate S.p.A.	Real estate	Milan	Euro	1,360,280	100.00%	Pirelli & C. Real Estate S.p.A.
Pirelli Cavi e Sistemi Energia S.p.A.	Energy Cables and Systems Holding Company	Milan	Euro	100,000,000	98.749% 1.251%	Pirelli S.p.A. Pirelli Finance (Luxembourg) S.A.
Pirelli Cavi e Sistemi Energia Italia S.p.A. (formerly CEAT Cavi S.r.l.)	Energy Cables and Systems	Milan	Euro	110,000,000	100.00%	Pirelli Cavi e Sistemi Energia S.p.A.
Pirelli Cavi e Sistemi S.p.A.	Cable Holding Company	Milan	Euro	12,694,200	98.749% 1.251%	Pirelli S.p.A. Pirelli Finance (Luxembourg) S.A.
Pirelli Cavi e Sistemi Telecom S.p.A.	Telecom Cables and Systems Holding Company	Milan	Euro	70,000,000	98.749% 1.251%	Pirelli S.p.A. Pirelli Finance (Luxembourg) S.A.
Pirelli Cavi e Sistemi Telecom Italia S.p.A.	Telecom Cable and Systems	Milan	Euro	41,000,000	100.00%	Pirelli Cavi e Sistemi Telecom S.p.A.
Pirelli Cultura S.p.A.	Sundry	Milan	Euro	1,000,000	99.00% 1.00%	Pirelli S.p.A. Trefin S.r.l.
Pirelli Informatica S.p.A.	Information Systems	Milan	Euro	520,000	100.00%	Pirelli S.p.A.
Pirelli Labs S.p.A.	Development	Milan	Euro	10,000,000	100.00%	Pirelli Cavi e Sistemi S.p.A.
Pirelli Metzeler Motovelo S.r.l.	Tyres	Milan	Euro	4,590,000	100.00%	Metzeler Reifen GmbH
Pirelli Nastri Tecnici S.p.A. (in liquidation)	Sundry	Milan	Euro	384,642	100.00%	Pirelli S.p.A.
Pirelli Pneumatici Europa S.r.l.	Service	Milan	Euro	20,000,000	100.00%	Pirelli Pneumatici Holding S.p.A.
Pirelli Pneumatici Holding S.p.A.	Financial	Milan	Euro	121,800,000	100.00%	Pirelli Tyre Holding N.V.

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
Pirelli Pneumatici S.p.A.	Tyres	Milan	Euro 252,320,000	100.00%		Pirelli Pneumatici Holding S.p.A.
Pirelli Servizi Finanziari S.p.A.	Financial	Milan	Euro 1,976,000	100.00%		Pirelli S.p.A.
Pirelli Submarine Telecom System Italia S.p.A.	Telecom Cables and Systems	Milan	Euro 50,000,000	100.00%		Pirelli Submarine Telecom Systems Holding B.V.
Pirelli & C. Ambiente S.p.A.	Environment	Milan	Euro 3,060,000	100.00%		Pirelli & C. A.p.A.
Pirelli & C. Credit Servicing S.p.A. (formerly Milano Centrale Alcotim S.p.A.)	Financial	Milan	Euro 5,200,000	100.00%		Pirelli & C. A.p.A.
Pirelli S.p.A.	Holding	Milan	Euro 1,043,094,358	10.80% 26.31% 8.14%	10.85% 27.52% 0.00%	Pirelli & C. A.p. A. Pirelli & C. Luxembourg S.A. Pirelli S.p.A.
Pirelli & C. Commercial Agency S.p.A. (formerly Pirelli & C. Agency 2 S.p.A.)	Real estate	Milan	Euro 832,000	100.00%		Pirelli & C. Real Estate S.p.A.
Pirelli & C. Casa S.p.A. (formerly Milano Centrale Mediacaia S.p.A.)	Real estate	Milan	Euro 520,000	100.00%		Pirelli & C. Real Estate S.p.A.
Pirelli & C. Opere Generali S.p.A. (formerly Milano Centrale Opere Generali S.p.A.)	Real estate	Milan	Euro 104,000	100.00%		Pirelli & C. Real Estate S.p.A.
Pirelli & C. Project Management S.p.A. (formerly Milano Centrale Servizi di Sviluppo S.p.A.)	Real estate	Milan	Euro 520,000	100.00%		Pirelli & C. Real Estate S.p.A.
Pirelli & C. Property Management S.p.A. (formerly Milano Centrale Cagisa S.p.A.)	Real estate	Milan	Euro 114,400	92.00%		Pirelli & C. Real Estate S.p.A.
Pirelli & C. Real Estate S.p.A. (formerly Milano Centrale S.p.A.)	Real estate	Milan	Euro 17,307,056	92.27%		Pirelli & C. A.p. A.
Polo Viaggi S.r.l.	Travel Agency	Milan	Euro 46,800	100.00%		Pirelli S.p.A.
Progetti Creativi S.r.l.	Real estate	Milan	Euro 51,000	100.00%		Pirelli & C. Agency S.p.A.
Progetto Ambiente Alfa S.r.l.	Environment	Milan	Euro 25,500	100.00%		Pirelli Ambiente S.p.A.
Progetto Ambiente Beta S.r.l.	Environment	Milan	Euro 25,500	100.00%		Pirelli Ambiente S.p.A.
Progetto Ambiente Gamma S.r.l.	Environment	Milan	Euro 25,500	100.00%		Pirelli Ambiente S.p.A.
Progetto Bicocca Centro Tecnologico S.r.l.	Real estate	Milan	Euro 93,600	100.00%		Pirelli & C. Real Estate S.p.A.
Progetto Bicocca Esplanade S.p.A.	Real estate	Milan	Euro 2,500,000	100.00%		Pirelli & C. Real Estate S.p.A.
Progetto Bicocca Il Centro S.r.l.	Real estate	Milan	Euro 93,000	100.00%		Pirelli & C. Real Estate S.p.A.
Progetto Grande Bicocca S.r.l.	Real estate	Milan	Euro 93,600	100.00%		Pirelli & C. Real Estate S.p.A.
Progetto Navigli S.r.l.	Real estate	Milan	Euro 52,000	100.00%		Pirelli & C. Real Estate S.p.A.
Promedit '84 S.r.l.	Real estate	Milan	Euro 10,400	100.00%		Pirelli & C. Real Estate S.p.A.
Servizi Amministrativi Real Estate S.p.A.	Real estate	Milan	Euro 520,000	100.00%		Pirelli & C. Real Estate S.p.A.
Servizi Aziendali Pirelli S.C.p.A.	Service	Milan	Euro 104,000	93.00% 0.50% 0.50% 1.00% 1.00% 1.00% 1.00% 1.00%		Pirelli S.p.A. Pirelli Cavi e Sistemi Energia S.p.A. Pirelli Cavi e Sistemi Telecom S.p.A. Pirelli Pneumatici S.p.A. Polo Viaggi S.r.l. Pirelli Pneumatici Holding S.p.A. Pirelli & C. A.p.A. Pirelli & C. Real Estate S.p.A. Alfa Due S.p.A.

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
Sistema Puntogomma S.p.A.	Tyres	Milan	Euro	3,060,000	100.00%	Pirelli Pneumatici Holding S.p.A.
Stella Polare S.r.l. (in liquidation)	Real estate	Milan	Euro	289,215	100.00%	Pirelli & C. Real Estate S.p.A.
Tau S.r.l.	Real estate	Milan	Euro	93,600	100.00%	Pirelli & C. Real Estate S.p.A.
Trefin S.r.l.	Financial	Milan	Euro	4,242,476	100.00%	Pirelli S.p.A.
<b>LUXEMBOURG</b>						
Ganirco S.A. (formerly Ganirco Holding S.A.)	Financial	Luxembourg	Fr.Sv.	2,100,000	100.00%	Pirelli Finance (Luxembourg) S.A.
Pirelli Finance (Luxembourg) S.A.	Financial	Luxembourg	Euro	270,228,168	100.00%	Pirelli S.p.A.
Pirelli & C. Luxembourg S.A.	Financial	Luxembourg	Fr.Sv./000	270,000	100.00%	Pirelli & C.A.p.A.
<b>NORWAY</b>						
Pirelli Kabler og Systemer AS	Energy Cables and Systems	Ski	Corona Nor.	100,000	100.00%	Pirelli Cables and Systems OY
<b>THE NETHERLANDS</b>						
Optical Technologies The Netherlands B.V.	Financial	Delft	Euro	183,235,100	67.88% 32.12%	0.00% Pirelli S.p.A. Optical Technologies The Netherlands B.V.
Pirelli Cable Holding N.V.	Systems Holding Company	Delft	Euro	272,515,065	100.00%	Pirelli Cavi e Sistemi Energia S.p.A.
Pirelli Cable Overseas N.V.	Telecom Cables and Systems	Delft	Euro	10,000,000	100.00%	Pirelli Cavi e Sistemi Telecom S.p.A.
Pirelli Cables and Systems N.V.	Energy Cables and Systems	Delft	Euro	5,000,000	100.00%	Pirelli Cable Holding N.V.
Pirelli Submarine Telecom Systems Holding B.V.	Telecom Cables and Systems	Delft	Euro	4,500,000	90.00%	Pirelli Cavi e Sistemi Telecom S.p.A.
Pirelli Telecom Cables and Systems The Netherlands N.V. (formerly Pirelli Technology and Intellectual Property Licensing N.V.)	Telecom Cables and Systems	Delft	Euro	50,000	100.00%	Pirelli Cavi e Sistemi Telecom S.p.A.
Pirelli Tyre Holding N.V.	Tyre Holding Company	Breukelen	Euro	798,396,003	100.00%	Pirelli S.p.A.
Pirelli Tyres Nederland B.V.	Tyres	Breukelen	Euro	18,152	100.00%	Lunares S.A.
Sipir Finance N.V.	Financial	Rotterdam	Euro	41,146,522	100.00%	Pirelli Tyre Holding N.V.
<b>POLAND</b>						
Pirelli Polska Sp.zo.o.	Tyres	Warsaw	Pol. Zloty	6,257,708,500	100.00%	Lunares S.A.
<b>PORTUGAL</b>						
Desco Fabrica Portuguesa de Material Electrico e Electronico S.A.	Energy Cables and Systems	Arcozelo Vngala	Euro	1,545,000	70.93% 29.07%	Pirelli Energie Cables et Systemes France S.A. (già Pirelli Cables et Systemes S.A.) Eurelectric S.A.
<b>SLOVAK REPUBLIC</b>						
Kablo Bratislava Spol. S.R.O.	Energy Cables and Systems	Bratislava	Slov. Koruna	523,334,000	100.00%	Pirelli Cable Holding N.V.
Pirelli Slovakia S.R.O.	Tyres	Bratislava	Slov. Koruna	200,000	100.00%	Lunares S.A.
<b>RUMANIA</b>						
S.C. Pirelli Romania Cabluri si Sisteme S.A.	Energy Cables and Systems	Statina	Leu Rumeni/000	208,927,700	100.00%	Pirelli Cable Holding N.V.
<b>SPAIN</b>						
Percable S.A.	Energy Cables and Systems	Barcelona	Euro	3,606,073	100.00%	Pirelli Cables y Sistemas S.A.
Omnia Motor S.A.	Tyres	Barcelona	Euro	1,502,530	100.00%	Pirelli Pneumaticos S.A.
Pirelli Cables y Sistemas S.A.	Energy Cables and Systems	Barcelona	Euro	24,000,000	100.00%	Pirelli Cable Holding N.V.

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
Pirelli Esmar S.A.	Energy Cables and Systems	Torredembarra	Euro	8,714,675	100.00%	Pirelli Cables y Sistemas S.A.
Pirelli Pneumaticos S.A.	Tyres	Barcelona	Euro	45,075,908	100.00%	Pirelli Tyre Holding N.V.
Pirelli Telecom Cables y Sistemas Espana S.L.	Telecom Cables and Systems	Barcelona	Euro	12,000,000	100.00%	Pirelli Cavi e Sistemi Telecom S.p.A.
<b>SWEDEN</b>						
Pirelli Kablar och System AB	Energy Cables and Systems	Hoganas	Kr. Sv.	100,000	100.00%	Pirelli Cables and Systems OY
Pirelli Tyre Nordic AB	Tyres	Stocolma	Kr. Sv.	950,000	100.00%	Lunares S.A.
<b>SWITZERLAND</b>						
Agom S.A.	Tyres	Conthey	Frs.	50,000	75.00%	Lunares S.A.
Agom S.A. Bioggio	Tyres	Bioggio	Frs.	590,000	75.00%	Lunares S.A.
Agom S.A. Locarno (in liquidation)	Tyres	Locarno	Frs.	50,000	75.00%	Lunares S.A.
Agom S.A. Lugano (in liquidation)	Tyres	Lugano	Frs.	102,000	75.00%	Lunares S.A.
Biasi S.A. (in liquidation)	Tyres	Lugano	Frs.	250,000	75.00%	Lunares S.A.
Lunares S.A.	Tyre Holding Company	Basel	Frs.	10,000,000	100.00%	Pirelli Tyre Holding N.V.
Pirelli Cables and Systemes S.A.	Energy Cables and Systems	Basel	Frs.	500,000	100.00%	Pirelli Cable Holding N.V.
Pirelli Produkte Holding A.G. (in liquidation)	Energy Cables and Systems	Basel	Frs.	9,500,000	100.00%	Pirelli Cable Holding N.V.
Pirelli Société de Services S.a.r.l.	Financial	Basel	Frs.	50,000	100.00%	Pirelli Société Générale S.A.
Pirelli Société Générale S.A.	Financial	Basel	Frs.	28,000,000	100.00%	Pirelli S.p.A.
Pirelli Submarine Telecom Systems S.A.	Telecom Cables and Systems	Basel	Frs.	1,230,000	100.00%	Pirelli Submarine Telecom Systems Holding B.V.
Pirelli Tyre (Europe) S.A.	Tyres	Basel	Frs.	1,000,000	100.00%	Lunares S.A.
<b>TURKEY</b>						
Celikord A.S.	Tyres	Istanbul	TL/mil.	12,100,000	49.75% 0.71% 0.27% 0.27%	Pirelli Tyre Holding N.V. Sipir Finance N.V. Pirelli Pneumatici Holding S.p.A. Pirelli Deutschland A.G.
Turk-Pirelli Lastikleri A.S.	Tyres	Istanbul	TL/mil.	59,000,000	60.884% 1.565% 0.076% 0.076% 0.076% 0.076% 0.076% 0.076% 0.076%	Pirelli Tyre Holding N.V. Sipir Finance N.V. Pirelli Deutschland A.G. Pirelli UK Tyres Ltd Pirelli Pneumatici S.p.A. Lunares S.A. Pirelli Pneumatici Holding S.p.A. Metzeler Reifen GmbH Pirelli Reifenwerke GmbH & Co. K.G. Pirelli Pneumaticos S.A.
Turk-Pirelli Kablo ve Sistemleri A.S.	Energy Cables and Systems	Mudania/Bursa	TL/mil.	3,780,000	83.746%	Pirelli Cable Holding N.V.
Zalsan Zirai Arac Lastikleri A.S.	Tyres	Istanbul	TL/mil.	1,400,000	70.00%	Turk-Pirelli Lastikleri A.S.
<b>HUNGARY</b>						
Kabel Keszletertekesto BT.	Energy Cables and Systems	Budapest	HUF/000	1,239,841	100.00%	MKM Magyar Kabel Muvek Rt.

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
MKM Magyar Kabel Muvek RT.	Energy Cables and Systems	Budapest	HUF/000	6,981,070	100.00%	Pirelli Cable Holding N.V.
Pirelli Construction Hungary Limited	Energy Cables and Systems	Budapest	HUF/000	3,000	100.00%	Pirelli Cable Holding N.V.
Pirelli Hungary Tyre Trading and Services Limited	Tyres	Budaors	HUF/000	3,000	100.00%	Lunares S.A.
<b>NORTH AMERICA</b>						
<b>CANADA</b>						
Pirelli Power Cables and Systems Canada Ltd (formerly Pirelli Cables and Systems Inc.)	Energy Cables and Systems	Saint John (New Brunswick)	Can. \$	40,000,000	100.00%	Pirelli Cable Holding N.V.
Pirelli Tire Inc.	Tyres	Ottawa (Ontario)	Can. \$	6,000,000	100.00%	Lunares S.A.
<b>U.S.A.</b>						
Metzeler Motorcycle Tire North America Corp.	Tyres	Seattle (Washington)	US \$	150,000	100.00%	Metzeler Reifen GmbH
Pirelli Communications Cables and Systems USA LLC (formerly Pirelli Cables and Systems LLC)	Telecom Cables and Systems	Wilmington (Delaware)	US \$	10	100.00%	Pirelli North America Inc. "B1"
Pirelli Construction Services Inc.	Energy Cables and Systems	Dover (Delaware)	US \$	1,000	100.00%	Pirelli Power Cables and Systems USA LLC
Pirelli Jacobson Inc.	Energy Cables and Systems	Dover (Delaware)	US \$	2,000	100.00%	Pirelli Power Cables and Systems USA LLC
Pirelli North America Inc. "A"	Tyres	Wilmington (Delaware)	US \$	3.15	100.00%	Pirelli Tyre Holding N.V.
Pirelli North America Inc. "B1" (già Pirelli North America Inc. B)	Telecom Cables and Systems	Wilmington (Delaware)	US \$	5.75	100.00%	Pirelli Cavi e Sistemi Telecom S.p.A.
Pirelli North America Inc. "B2" (formerly Pirelli North America Inc. B)	Energy Cables and Systems	Wilmington (Delaware)	US \$	1.10	100.00%	Pirelli Cavi e Sistemi Energia S.p.A.
Pirelli Power Cables and Systems USA LLC	Energy Cables and Systems	Wilmington (Delaware)	US \$	10	100.00%	Pirelli North America Inc. "B2"
Pirelli RNC Inc.	Commercial	Wilmington (Delaware)	US \$	1	100.00%	Pirelli Tyre Holding N.V.
Pirelli Tire LLC	Tyres	Wilmington (Delaware)	US \$	1	100.00%	Pirelli North America Inc. "A"
<b>CENTRAL/SOUTH AMERICA</b>						
<b>DUTCH ANTILLES</b>						
Pirelli Financial Services Company N.V.	Financial	Curaçao	US \$	11,000,000	100.00%	Pirelli Finance (Luxembourg) S.A.
Pirelli Insurance & Reinsurance Company N.V.	Insurance	Curaçao	US \$	10,000,000	100.00%	Pirelli Financial Services Co NV
<b>ARGENTINA</b>						
Pipla S.A.	Energy Cables and Systems	Buenos Aires	Arg. Peso	1	66.97%	Pirelli Cons. Cond.Inst. SAIC
Pirelli Argentina de Mandatos S.A.	Service	Buenos Aires	Arg. Peso	500,000	100.00%	Pirelli Société Générale S.A.
Pirelli Consultora Conductores e Instalaciones S.A.I.C.	Energy Cables and Systems	Buenos Aires	Arg. Peso	2,227	100.00%	Pirelli Cable Holding N.V.
Pirelli Consultora de Telecomunicaciones S.A.	Telecom Cables and Systems	Buenos Aires	Arg. Peso	12,000	100.00%	Pirelli Cable Holding N.V.
Pirelli Energia Cables y Sistemas de Argentina S.A. (formerly Pirelli Cables S.A.I.C.)	Energy Cables and Systems	Buenos Aires	Arg. Peso	44,509,458	74.91% 24.69%	Pirelli Consultora Conductores e Instalaciones SAIC Pirelli Cable Holding N.V.
Pirelli Neumaticos S.A.I.C.	Tyres	Buenos Aires	Arg. Peso	19,016,500	99.02% 0.98%	Pirelli Tyre Holding N.V. Pirelli Pneumatici Holding S.p.A.
Pirelli Telecomunicaciones Cables y Sistemas de Argentina S.A.	Telecom Cables and Systems	Buenos Aires	Arg. Peso	12,000	75.00% 25.00%	Pirelli Consultora Conductores e Instalaciones SAIC Pirelli Cable Holding N.V.
Tel 3 S.A.	Energy Cables and Systems	Buenos Aires	Arg. Peso	11,075,000	51.00%	Pirelli Energia Cables y Sistemas de Argentina S.A. (già Pirelli Cables S.A.I.C.)



Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
<b>BRAZIL</b>						
Muriae Ltda	Financial	Santo André	Bra Real	80,000,000	100.00%	Pirelli Pneus S.A.
Pirelli Energia Cabos e Sistemas do Brasil S.A. (formerly Pirelli Cabos S.A.)	Energy Cables and Systems	Santo André	Bra Real	98,566,717	87.202% 12.167%	88.783% 10.278% Pirelli Cavi e Sistemi Energia S.p.A. Pirelli S.A.
Pirelli Pneus Nordeste Ltda	Tyres	Feira de Santana	Bra Real	29,991,402	100.00%	Pirelli Pneus S.A.
Pirelli Pneus S.A.	Tyres	Santo André	Bra Real	264,618,982	54.662% 41.322% 3.595%	18.929% 79.776% 0.646% Pirelli Pneumatici S.p.A. Pirelli Tyre Holding N.V. Pirelli S.A.
Pirelli Produtos Especiais Ltda	Energy Cables and Systems	Cerquilho	Bra Real	43,143,421	100.00%	Pirelli Energia Cabos e Sistemas do Brasil S.A.
Pirelli S.A.	Financial	Santo André	Bra Real	45,848,684	100.00%	Pirelli S.p.A.
Pirelli Telecomunicações Cabos e Sistemas do Brasil S.A.	Telecom Cables and Systems	Sorocaba	Bra Real	64,240,293	87.202% 12.168%	88.782% 10.279% Pirelli Cavi e Sistemi Telecom S.p.A. Pirelli S.A.
Pirelli & C. Real Estate Ltda (formerly MCM Empreendimentos Imobiliários - Empresa Pirelli & C. Ltda)	Real estate	Santo André	Bra Real	2,000,000	60.000% 30.000%	Pirelli & C. Real Estate S.p.A. Pirelli S.A.
Pneuc Comercial e Importadora Ltda	Tyres	San Paolo	Bra Real	12,913,526	100.00%	Pirelli Pneus S.A.
Solac - Laminadora de Cobre Ltda	Energy Cables and Systems	Jacarei	Bra Real	8,485,100	89.00%	Pirelli Energia Cabos e Sistemas do Brasil S.A.
<b>CHILE</b>						
Pirelli E y T S.A.	Energy Cables and Systems	Santiago	Chile Peso/000	3,072,471	99.82%	Pirelli Instalaciones Chile S.A.
Pirelli Instalaciones Chile S.A.	Energy Cables and Systems	Santiago	Chile Peso/000	918,707	90.00% 10.00%	Pirelli Consultora Conductores e Instalaciones SAIC Cite S.A.
Pirelli Neumaticos Chile Limitada	Tyres	Santiago	US \$	1,918,451	99.98% 0.02%	Pirelli Pneus S.A. Pneuc Comercial e Importadora Ltda
<b>COLOMBIA</b>						
Pirelli de Colombia S.A.	Tyres	Santa Fe De Bogota	Col. Peso/000	10,977,466	94.95% 1.63% 1.14% 1.14% 1.14%	Pirelli Pneus S.A. Pirelli de Venezuela C.A. Muriae Ltda Pirelli Pneus Nordeste Ltda Pneuc Comercial e Importadora Ltda
<b>MEXICO</b>						
Pirelli Neumaticos de Mexico S.A. de C.V. (formerly Pirelmex S.A. de C.V.)	Tyres	Mexico City	Mex Peso	35,098,600	99.98% 0.02%	Pirelli Pneus S.A. Pneuc Comercial e Importadora Ltda
<b>URUGUAY</b>						
Cite S.A.	Energy Cables and Systems	Montevideo	Urug. Peso	4,900,000	100.00%	Pirelli Energia Cables y Sistemas de Argentina S.A. (gia Pirelli Cables S.A.I.C.)
<b>VENEZUELA</b>						
Pirelli de Venezuela C.A.	Tyres	Valencia	Ven. Bolivar/000	13,062,679	96.22%	Pirelli Tyre Holding N.V.

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
<b>AFRICA</b>						
<b>IVORY COST</b>						
SICABLE - Société Ivoirienne de Câbles S.A.	Energy Cables and Systems	Abidjan	Cfa Franc.	740,000,000	51.00%	Pirelli Energie Câbles et Systèmes France S.A. (già Pirelli Câbles et Systèmes S.A.)
<b>EGYPT</b>						
Alexandria Tire Company S.A.E.	Tyres	Alexandria	Egy. Pound	300,000,000	74.54% 8.19%	Pirelli Pneumatici Holding S.p.A. Pirelli Pneumatici S.p.A.
International Tire Company Ltd	Tyres	Alexandria	Egy. Pound	50,000	96.00%	Alexandria Tire Company S.A.E.
<b>SOUTH AFRICA</b>						
Pirelli Cables & Systems (Proprietary) Limited (formerly El Granada Investments (Pty) Ltd)	Commercial	Woodmead, S.A.	S.A. Rand	100	100.00%	Pirelli Cavi e Sistemi Energia S.p.A.
Pirelli Tyre (Pty) Ltd (formerly Italian Tyre Pty Ltd)	Tyres	Sandton	S.A. Rand	1	100.00%	Lunares S.A.
<b>OCEANIA</b>						
<b>AUSTRALIA</b>						
Pirelli Power Cables & Systems Australia PTY Limited	Energy Cables and Systems	Liverpool - N.S.W.	Aus. \$	15,000,000	100.00%	Pirelli Cavi e Sistemi Energia S.p.A.
Pirelli Telecom Cables & Systems Australia PTY Limited (formerly Pirelli Cables Australia Ltd)	Telecom Cables and Systems	Liverpool - N.S.W.	Aus. \$	38,500,000	100.00%	Pirelli Cavi e Sistemi Telecom S.p.A.
Pirelli Tyres Australia Pty Ltd	Tyres	Pymble - N.S.W.	Aus. \$	150,000	100.00%	Lunares S.A.
<b>NEW ZEALAND</b>						
Pirelli Power Cables & Systems New Zealand Limited	Energy Cables and Systems	Auckland	N.Z. \$	10,000	100.00%	Pirelli Power Cables & Systems Australia PTY Limited
Pirelli Telecom Cables & Systems New Zealand Limited (formerly Pirelli Cables NZ Ltd)	Telecom Cables and Systems	Auckland	N.Z. \$	10,000	100.00%	Pirelli Telecom Cables & Systems Australia PTY Limited
Pirelli Tyres (NZ) Ltd	Tyres	Wellington	N.Z. \$	100	100.00%	Pirelli Tyres Australia Pty Ltd
<b>ASIA</b>						
<b>CHINA</b>						
BICC General Baosheng Cable Co. Ltd	Energy Cables and Systems	Jiangsu	US \$	19,500,000	67.00%	Pirelli Cables Asia-Pacific Pte Ltd
Invex Insulated Conductors (Baoying) Co. Ltd	Energy Cables and Systems	Yangzhou	Euro	6,000,000	100.00	Pirelli Cables Holding N.V.
Pirelli Cables (Shanghai) Trading Co. Ltd	Energy Cables and Systems	Shanghai	US \$	500,000	100.00%	Pirelli Cables Asia-Pacific Pte Ltd
Pirelli Telecom Cables Co. Ltd Wuxi	Telecom Cables and Systems	Xuelang Town	US \$	28,640,750	70.565%	Pirelli Cable Overseas N.V.
Tianjin Top Power Cables Co. Ltd	Energy Cables and Systems	Tianjin Municipality	US \$	13,100,000	51.145%	Pirelli Cable Holding N.V.
<b>JAPAN</b>						
P & A K.K.	Tyres	Tokyo	Jap. Yen	1,700,000,000	51.00%	Pirelli Tyre Holding N.V.
Pirelli K.K.	Tyres	Tokyo	Jap. Yen	40,000,000	100.00%	Lunares S.A.
<b>INDIA</b>						
Pirelli Cables (India) Private Limited	Energy Cables and Systems	New Delhi	India Rupee	10,000,000	99.998% 0.002%	Pirelli Cable Holding N.V. Pirelli Cavi e Sistemi Energia S.p.A.
<b>INDONESIA</b>						
P.T. Pirelli Cables Indonesia	Energy Cables and Systems	Jakarta	US \$	50,000,000	99.30% 0.70%	Pirelli Cable Holding N.V. Pirelli Cable Overseas N.V.

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
<b>MALAYSIA</b>						
BICC (Malaysia) Sdn Bhd	Energy Cables and Systems	Kuala Lumpur	Mal. Ringgit	100,000	100.00%	Pirelli Cables Asia-Pacific Pte Ltd
Submarine Cable Installation Sdn Bhd	Energy Cables and Systems	Kuala Lumpur	Mal. Ringgit	10,000	99.00% 1.00%	Pirelli Cavi e Sistemi Energia S.p.A. Pirelli Cable Systems Pte Ltd
<b>MAURITIUS</b>						
BICCGeneral Asia Pacific Holdings	Energy Cables and Systems	Port Louis	US \$	2	100.00%	Pirelli Cables Asia-Pacific Pte Ltd
<b>SINGAPORE</b>						
BICC Cables Malaysia Pte Ltd (in liquidation)	Energy Cables and Systems	Singapore	Sing. \$	2	100.00%	Pirelli Cables Asia-Pacific Pte Ltd
BICC Energy Cables Pte Ltd (in liquidation)	Energy Cables and Systems	Singapore	Sing. \$	3,000,000,000	100.00%	Pirelli Cables Asia-Pacific Pte Ltd
Pirelli Asia Pte Ltd	Tyres	Singapore	Sing. \$	2	100.00%	Lunares S.A.
Pirelli Cable Systems Pte Ltd	Energy Cables and Systems	Singapore	Sing. \$	25,000	50.00% 50.00%	Pirelli General plc Pirelli Cable Holding N.V.
Pirelli Cables Asia-Pacific Pte Ltd (formerly BICCGeneral Asia Pacific Cables Pte Ltd)	Energy Cables and Systems	Singapore	Sing. \$	213,324,290	100.00%	Pirelli Cable Holding N.V.
Trans-Power Cables PTE Ltd	Cables and Systems	Singapore	Sing. \$/000	1,500	100.00%	Pirelli & C. Luxembourg S.A.

## COMPANIES CONSOLIDATED USING THE PROPORTIONAL METHOD

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
EUROPE						
ITALY						
Progetto Bicocca Università S.r.l.	Real estate	Milan	Euro	873,600	34.00%	Pirelli & C. Real Estate S.p.A.

## INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
Jointly controlled companies						
EUROPE						
ITALY						
Olimpia S.p.A.	Industrial Holding Company	Milan	Euro	1,562,596,150	60.00%	Pirelli S.p.A.
Associated companies						
EUROPE						
GERMANY						
Drahtcord Saar Geschaeftsfuehrungs GmbH	Tyres	Merzig	Marchi T.	60,000	50.00%	Pirelli Deutschland A.G.
Drahtcord Saar GmbH & Co. K.G.	Tyres	Merzig	Marchi T.	30,000,000	50.00%	Pirelli Deutschland A.G.
Kabeltrommel Gesellschaft GmbH & Co. K.G.	Energy Cables and Systems	Cologne	Marchi T.	20,000,000	27.48%	Pirelli Kabel und Systeme GmbH & Co. KG
UNITED KINGDOM						
Rodco Ltd	Energy Cables and Systems	Gravesend	Lira Sterl.	5,000,000	40.00%	Pirelli General plc
ITALY						
Agled S.r.l.	Real estate	Rome	Euro	100,000	30.00%	Cagisa S.p.A.
Auriga Immobiliare S.r.l.	Real estate	Rome	Euro	25,602,000	36.02%	Pirelli & C. Real Estate S.p.A.
Casaleck S.p.A.	Real estate	Milan	Euro	10,669,723	39.06	Pirelli & C. Casa S.p.A.
Epichuk S.p.A.	Informatica	Milan	Euro	12,500,000	30.30%	Pirelli S.p.A.
Eurostazioni S.p.A.	Real estate	Rome	Euro	60,000,000	31.67%	Partecipazioni Real Estate S.p.A.
Idea Grantia S. Consortile r.l.	Environment	Cuneo	Euro	1,292,500	49.00%	Pirelli Ambiente S.p.A.
Immobiliare Prizia S.r.l.	Real estate	Milan	Euro	15,000	30.00%	Pirelli & C. Real Estate S.p.A.
Iniziativa Immobiliari S.r.l.	Real estate	Milan	Euro	4,312,591	38.45%	Pirelli & C. Real Estate S.p.A.
Orione Immobiliare Prima S.p.A.	Real estate	Milan	Euro	104,000	25.00%	Pirelli & C. Real Estate S.p.A.
Progetto Bicocca La Piazza S.r.l.	Real estate	Milan	Euro	3,151,800	26.00%	Pirelli & C. Real Estate S.p.A.
Progetto Fontana S.r.l.	Real estate	Milan	Euro	500,000	23.00%	Pirelli & C. Real Estate S.p.A.
Progetto Grande Bicocca Multisala S.r.l.	Real estate	Milan	Euro	1,530,000	33.00%	Pirelli & C. Real Estate S.p.A.
Progetto Lainate S.r.l.	Real estate	Milan	Euro	25,500	25.00%	Pirelli & C. Real Estate S.p.A.
Regus Business Centres Italia S.p.A.	Real estate	Milan	Euro	2,500,000	35.00%	Partecipazioni Real Estate S.p.A.
SMP Melfi S.r.l.	Tyres	Melito (NA)	Euro	3,511,906	50.00%	Pirelli Pneumatici Holding S.p.A.
LUXEMBOURG						
Inimm Due S.a.r.l.	Real estate	Luxembourg	Euro	240,950	25.00%	Pirelli & C. Real Estate S.p.A.
In Holdings I S.a.r.l.	Real estate	Luxembourg	Euro	50,000	25.00%	Pirelli & C. Real Estate S.p.A.
M.S.M.C. Solferino S.a.r.l.	Real estate	Luxembourg	Euro	136,700	31.25%	Pirelli & C. Real Estate S.p.A.
THE NETHERLANDS						
M.S.M.C. Italy Holding B.V.	Real estate	Amsterdam	F.O.L./000	40	25.00%	Pirelli & C. Real Estate S.p.A.
SPAIN						
Optiwire S.L.	Cables and Systems	Barcelona	Euro	6,010	50.00%	Pirelli Cables y Sistemas S.A.

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
<b>CENTRAL/SOUTH AMERICA</b>						
<b>ARGENTINA</b>						
Líneas de Transmisión de Buenos Aires S.A.	Energy Cables and Systems	Buenos Aires	Arg. Peso/000	12	20.00%	Pirelli Argentina de Mandatos S.A.
<b>BRAZIL</b>						
K.M.P. Cabos Especiais e Sistemas Ltda	Energy Cables and Systems	San Paolo	Real	6,600,916	40.00%	Pirelli Energia Cabos e Sistemas do Brasil S.A.
<b>ASIA</b>						
<b>SAUDI ARABIA</b>						
Sicew-Saudi Italian Co. for Electrical Works Ltd	Energy Cables and Systems	Jeddah	Saudi Riats/000	1,000,000	34.00%	Pirelli Cable Holding N.V.

## OTHER INVESTMENTS IN SUBSIDIARIES AND ASSOCIATED COMPANIES

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
<b>EUROPE</b>						
<b>AUSTRIA</b>						
Pirelli Kabelwerke und Systeme GmbH	Energy Cables and Systems	Vienna	Euro	36,336	100.00%	Pirelli Cavi e Sistemi Energia S.p.A.
<b>BELGIUM</b>						
Euroquebe S.A.	Services	Bruxelles	Euro	77,461,250	21.81%	Pirelli & C. Luxembourg S.A.
<b>FRANCE</b>						
LDS France - Soc.de Transport et Distribution S.A.	Distribution	Bagnolet Cedex	Euro	98,625	100.00%	Pirelli S.p.A.
Project Saint-Maurice S.a.S.	Real estate	Paris	Euro	38,200	100.00%	Pirelli & C. Real Estate S.p.A.
<b>GERMANY</b>						
Industriekraftwerk Breuberg GmbH	Cogeneration	Breuberg/Odenwald	Euro	1,533,876	26.00%	Pirelli Deutschland A.G.
Movimento Fabrica, Haus Des Graphischen Gewerbes G.m.b.H.	Real estate	Berlin	DM/000	50	25.00%	Pirelli & C. Real Estate S.p.A.
<b>ITALY</b>						
Delta S.p.A.	Real estate	Milan	Euro	153,000	100.00%	Pirelli & C. Real Estate S.p.A.
Parcheggi Bicocca S.r.l.	Real estate	Milan	Euro	25,500	75.00%	Pirelli & C. Real Estate S.p.A.
Progetto Bicocca Le Torri S.r.l.	Real estate	Milan	Euro	10,400	100.00%	Pirelli & C. Real Estate S.p.A.
Progetto Moncalieri S.r.l.	Real estate	Milan	Euro	90,000	100.00%	Pirelli & C. Real Estate S.p.A.
<b>THE NETHERLANDS</b>						
Popoy Holding B.V.	Real estate	Rotterdam	F.Ol.	53,100	100.00%	Pirelli & C. Real Estate S.p.A.
Robino Holding Amsterdam B.V.	Real estate	Amsterdam	F.Ol.	40,420	100.00%	Pirelli & C. Real Estate S.p.A.
<b>SPAIN</b>						
Euro Driver Car S.L.	Tyres	Barcelona	Euro	153,000	49.00%	Pirelli Neumaticos S.A.
<b>HUNGARY</b>						
Ipoly Kábeldob KFT.	Energy Cables and Systems	Szecsény	HUF/000	36,330	25.16%	MMK Magyar Kábel Művek Rt.
<b>AFRICA</b>						
<b>SOUTH AFRICA</b>						
AFCAB Holdings (Proprietary) Ltd	Energy Cables and Systems	Sandton	Rand Sudafr.	4,000	50.00%	Pirelli Cable Holding N.V.
African Cables Ltd	Energy Cables and Systems	Vereeniging	Rand Sudafr.	9,886,098	100.00%	AFCAB Holdings (Proprietary) Ltd
ATC (Proprietary) Ltd	Energy Cables and Systems	Brits	Rand Sudafr.	632,912	21.00%	African Cables Limited
<b>TUNISIA</b>						
Auto Cable Tunisie	Energy Cables and Systems	Tunis	TND	4,450,000	51.00%	Pirelli Energie Câbles et Systèmes France S.A.
<b>ZIMBABWE</b>						
BICC CAFCA Limited	Energy Cables and Systems	Harare	\$ Zimbabwe	15,706,000	73.46%	African Cable Limited
BICC (CENTRAL AFRICA) (Private) Limited	Energy Cables and Systems	Harare	\$ Zimbabwe	200,000	100.00%	BCC CAFCA Limited
Zimbabwe Cables (Pte) Limited	Energy Cables and Systems	Harare	\$ Zimbabwe	2	100.00%	BCC CAFCA Limited

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
<b>ASIA</b>						
<b>MALAYSIA</b>						
Power Cables Malaysia Sdn Bhd (formerly BICC General Cables (Malaysia) Sdn Bhd)	Energy Cables and Systems	Selangor Darul Ehsan	Ringgit Mal.	8,000,000	40.00%	Pirelli Cables Asia - Pacific Pte Ltd
<b>OCEANIA</b>						
<b>AUSTRALIA</b>						
MM Cables Energy Products Superannuation Pty Ltd	Energy Cables and Systems	Sydney	Aust. Schilling	2	100.00%	Pirelli Power Cables & Systems Australia PTY Ltd



**OTHER INVESTMENTS CONSIDERED SIGNIFICANT AS PER CONSOB RESOLUTION N. 11971 OF MAY 14, 1999**

Company	Business	Headquarters	Share capital	% ownership	% of vote	Held by
<b>AUSTRALIA</b>						
Optix Australia Ltd	Telecom Cables and Systems	Tottenham (Victoria)	Austr. \$	4,000,000	15.00%	Pirelli Telecom Cables & Systems Australia PTY Ltd
<b>ITALY</b>						
Eurofly Service S.p.A.	Services	Caselle Torinese	Euro	1,235	16.33%	Pirelli S.p.A.
F.C. Internazionale Milano S.p.A.	Sport	Milan	Euro	35,840,777	14.04%	Pirelli S.p.A.
Fin. Priv. S.r.l.	Financial	Milan	Euro	20,000	7.14% 7.14%	Pirelli & C. A.p.A. Pirelli S.p.A.
Servizio Titoli S.r.l.	Services	Turin	Euro	105,000	12.381%	Pirelli S.p.A.
Superga S.p.A.	Manufacturing	Rivoli	Euro	5,711,000	19.00%	Pirelli & C. A.p.A.
Tecnocittà S.r.l. (in liquidation)	Real estate	Milan	Euro	547,612	12.00%	Pirelli & C. Real Estate S.p.A.
<b>THE NETHERLANDS</b>						
MB Venture Capital Fund I Participating Company G.N.V.	Financial	Amsterdam	Euro	50,000	14.00%	Pirelli Finance (Luxembourg) S.A.
<b>UNITED KINGDOM</b>						
Cable Makers Properties and Services Ltd	Energy Cables and Systems	East Molesey	British Pound	337,000	18.30%	Pirelli General plc
<b>SWITZERLAND</b>						
Voltimum S.A.	Energy Cables and Systems	Meyrin	Swiss Franc	2,850,120	14.286%	Pirelli Cavi e Sistemi Energia S.p.A.
<b>TUNISIA</b>						
Société Tunisienne des Industries de Pneumatiques S.A.	Tyres	Tunis	Tun. Dinar	38,252,940	15.83%	Pirelli Pneumatici S.p.A.
<b>TURKEY</b>						
Türk Sodel Enerji A.S.	Cogeneration	Istanbul	Turk. Lira/ml.	900,000	13.98% 4.99%	Türk-Pirelli Lasikleri A.S. Celikord A.S.
<b>U.S.A.</b>						
Alloptic Inc.	Telecom Cables and Systems	Pleasanton (CA)	US \$	120,675,987	15.441%	Pirelli Cavi e Sistemi Telecom S.p.A.

**"This report has been translated from the original which was issued in accordance with Italian legislation."**

**AUDITORS' REPORT IN ACCORDANCE WITH ARTICLE 156 OF LAW  
 DECREE N° 58 DATED 24 FEBRUARY 1998**

Sede legale: Milano 20124 Via Vittor Pisani 20 Tel. 0267831 Fax 0266981433 Cap. Soc. 3.754.400,00 Euro i.v., C.F. e P. IVA e Reg. Imp. Milano 12979880153 Iscritta all'Albo Consob - Altri uffici: Ancona 60123 Via Corridoni 2 Tel. 07136881 - Bari 70125 Viale della Repubblica 110 Tel. 0804384111 - Bologna 40138 Via delle Lame 111 Tel. 051526611 - Brescia 25124 Via Cefalonia 70 Tel. 0302219811 - Firenze 50129 Tel. 0554627100 - Genova 16121 Piazza Dante 7 Tel. 01029041 - Milano 20122 Corso Europa 2 Tel. 0277851 - Napoli 80121 Piazza del Martiri 30 Tel. 0817644441 - Padova 35137 Largo Europa 16 Tel. 0498762677 - Palermo 90141 Via Marchese Ugo 60 Tel. 091349737 - Parma 43100 V.le Tanara 20/A Tel. 0521242848 - Roma 00154 Largo Fochetti 29 Tel. 06570251 - Torino 10129 Corso Montevecchio 37 Tel. 011556771 - Trento 38100 Via Manzoni 16 Tel. 0461232004 - Treviso 31100 Piazza Crispien 8 Tel. 042252750 - Udine 33030 Via Mazzini 12 Tel. 0432257894 - Verona 37122 Corso Italia Nuova 123 Tel. 0458822581

We have audited the consolidated financial statements of **Pirelli & C. Accomandita per Azioni** and its subsidiaries ("Pirelli & C. group") as of and for the year ended 31 December 2001. These financial statements are the responsibility of Pirelli & C. Accomandita per Azioni's directors. Our responsibility is to express an opinion on these financial statements based on our audit.

- 2 We conducted our audit in accordance with the auditing standards and criteria recommended by CONSOB. Those standards and criteria require that we plan and perform the audit to obtain the necessary assurance about whether the financial statements are free of material misstatement and, taken as a whole, are presented fairly. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the directors. We believe that our audit provides a reasonable basis for our opinion.

For the opinion on the financial statements of the prior period, which are presented for comparative purposes as required by law, reference is made to our report dated 11 April 2001.

- 3 In our opinion, the consolidated financial statements of Pirelli & C. group as of 31 December 2001 comply with the laws governing the criteria for their preparation; accordingly, they give a true and fair view of the financial position and of the results of operations of the group.

Milan, 22 April 2002

PricewaterhouseCoopers SpA

*(Signature)*






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PRYSMIAN Worldwide



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Energy

Telecom

**Who is Prysmian**

Prysmian is market leader and "Innovation driver" in all major Energy and Telecom cables business activities.

Prysmian produces electrical cables - from extremely high to very low voltage, for land, submarine and overhead applications - along with a vast range of accessories, and is the leader in turn-key projects of both underground and submarine cable links.

The development of materials, designs and processes enables Prysmian to offer a wide range of standard and specialist products for highly diverse applications. Prysmian is also the leader in cable products for critical applications (resistance to extremely high temperatures, fire, chemical agents and nuclear radiation).

Prysmian ranks as one of the world's leading producers of Optical Fibres and Telecommunication Cables. With multiple production facilities worldwide Prysmian supplies a comprehensive portfolio of state-of-the-art products into the telecoms industry: Optical Fibre (G 651, G 652, G 655), Optical Cable, Sirocco Blown Fibre System, Copper Cable, Premises/Data Cable & Connectivity Hardware.

**Main strengths of Prysmian**

Prysmian, formerly belonging to Pirelli, has for more than a century grown as a truly multinational corporation, deeply rooted in all local markets throughout the world and has built upon his core sectors. It has achieved this position thanks to its geographical presence (52 plants in 21 countries and 5 continents); its outstanding human potential (more than 12000 people); its solid financial position (a t/o of almost 3 €b in 2004) and its technical and managerial capability (thousands of intellectual property registrations since 1999).

**Prysmian's main focus for future growth**

Prysmian technological and research capability in terms of professional skills and resources will continue to be a great source of strength. This, coupled with customer close involvement and compliance with their requirements, enables Prysmian to manufacture and market high, high quality products and operate successfully from its bases around the world. Prysmian's priority is aimed at reducing the environmental impact of its processes and products. The management objective is focused on the achievement of an effective balance between personal accountability and team work, central guidance and local operating responsibility.

**Prysmian's mission**

This framework will enable Prysmian to finance a continuous growth through positive profit generation, in the interest of shareholders, customers and employees.

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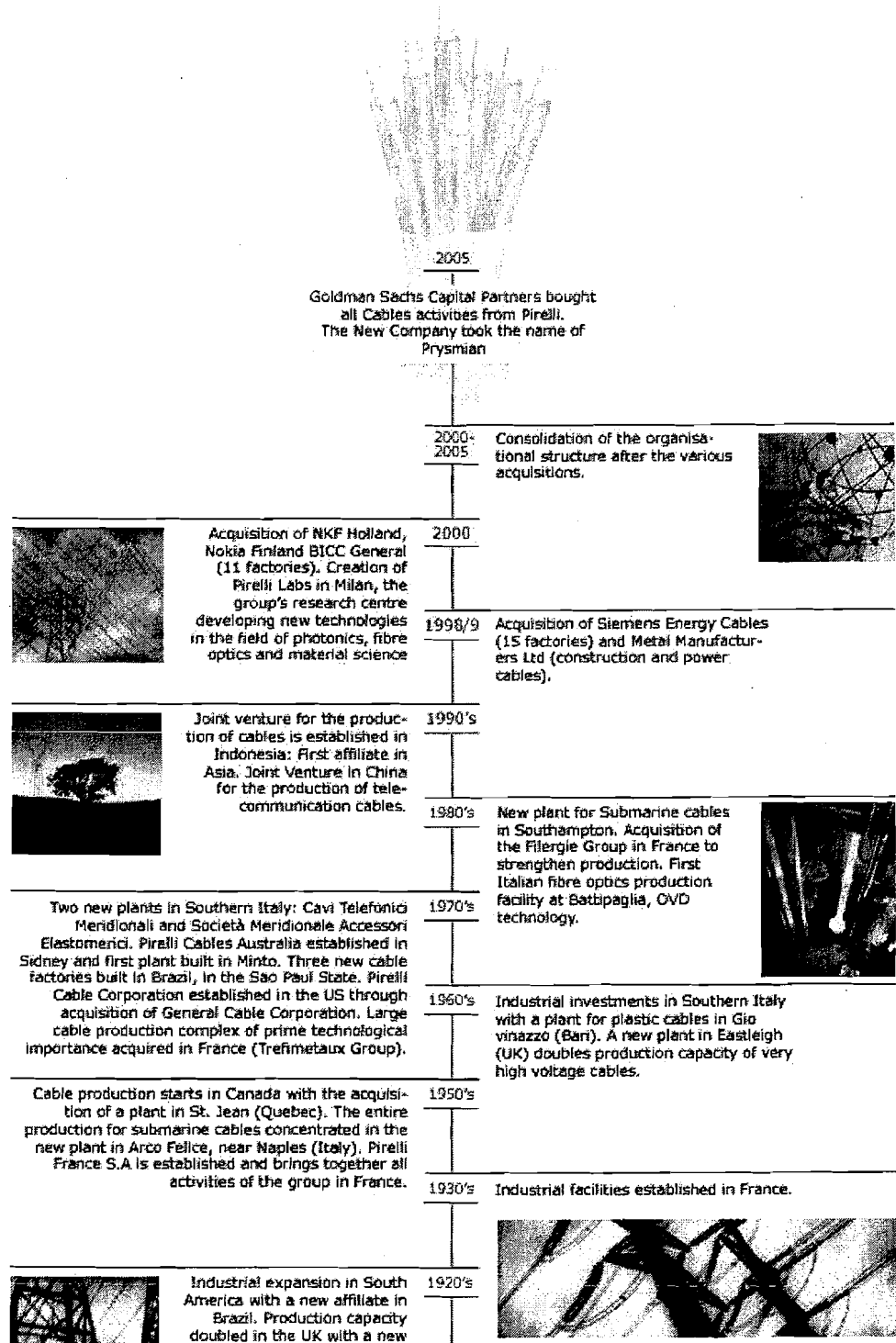
Search Tips

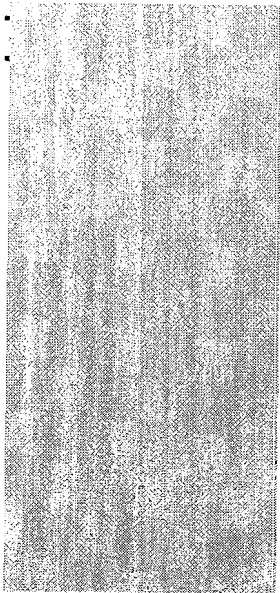
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Energy

Telecom


Cables history started more than 130 years ago...



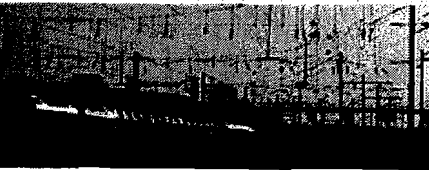




unit in Eastleigh.



First plant abroad is built in Spain (close to Barcelona)



Production of insulated wiring and cables for electrical application begins.

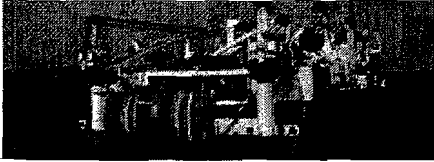
1910's

Sales companies established in London and Paris, sales offices established in Vienna, Brussels and Buenos Aires. Cable factory built in Southampton. First affiliate outside Europe (Argentina).

1902

1886

Production of undersea telegraph cables begins in Milan.



1879

Company founded on Jan 28.

1972

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## News 2006

News Archive : 2006 2005 2004 2003 2002 2001 2000

Prysmian Cables &amp; Systems: increase in results for the first half of 2006 Milan 28.09.2006

- **BEST PERFORMANCE OF THE LAST 5 YEARS FOR THE FORMER PIRELLI CABLES**
- **INCREASE IN VOLUMES IN ALL BUSINESS AREAS (ENERGY AND TELECOM)**
- **RECORD CONTRACT WORTH EUROS 400 MILLION ACQUIRED IN ITALY**
- **SALES EUROS 2,449.1 MILLION (+34.1% COMPARED TO SIX MONTH PERIOD ENDING JUNE 30, 2005)**
- **RECURRING EBITDA EUROS 210.6 MILLION (+74.5%)**
- **EBITDA EUROS 193.2 MILLION (+61%)**
- **EBIT EUROS 141.3 MILLION (+89.4%)**
- **NET RESULT EUROS 73.2 MILLION**

Milan, 28 September 2006. Prysmian's Board of Directors has examined the results for the six months ended June 30, 2006. Less than a year after the closing of the acquisition of Pirelli Cavi (later renamed Prysmian Cables & Systems) by Goldman Sachs Capital Partners, the transitional period can certainly be regarded as having been completed and, as the results at December 31, 2005 already showed, the changeover to the new ownership has occurred in the context of the continual growth of the business.

The six-month period to June 30, 2006 closed with positive results from the point of view of business performance and also from the standpoint of profit indicators, showing a strong improvement in comparison with the performance in the corresponding period of 2005. Operating in a sector of continuing growth, Prysmian has achieved the best sales performance of the last five years.

"In only a few months, the company succeeded in creating a new organizational, equity and financial structure and a new development plan," explains CEO, Valerio Battista. "The results of the first six months of 2006 show the wisdom of the strategic and organizational decisions which enabled us, in a short time, to achieve a stable organization as a completely independent company. Prysmian is a great new company, a world leader in the sector of cables and systems for energy and telecommunications, present in 41 countries in the 5 continents, with 54 production facilities and more than 12,000 employees."

**BUSINESS PERFORMANCE**

During the first six months of 2006, the company reported sales of Euros 2,449.1 million, an increase of +34% compared to the corresponding period of 2005 (+12.4% on a comparable consolidation basis, considering the trend in the price of metals). Prysmian's energy cables and systems business represents about 90% of total sales, while the telecommunications cables business represents the remaining approximately 10% of total sales.

**Energy**

Sales of the Energy business for the six months to June 30, 2006 amounted to Euro 2,240.3 million (+37.2% compared to the corresponding period of 2005). Volumes increased in all the geographical areas, especially in the case of "standard" products, as a result of the constant increase in demand, especially in the larger European countries and in the United States. The company also took action on several fronts to constantly improve its product mix.

Prysmian can count on a solid order portfolio for 2006, also benefiting from the significant investments and development projects being undertaken in the utilities sector. At the beginning of 2006, Prysmian was awarded one of the largest supply contracts (worth Euros 400 million) in the sector, for the construction of a submarine interconnection between Sardinia and the Italian mainland (SA.PE.I.), on behalf of Terna Rete Elettrica Nazionale S.p.A..

With regard to the various business areas, important projects to create high and extra-high voltage links were being completed or acquired in 2006, which confirm Prysmian's leading position in the sector: in Italy, the 400-KV Turbigo-Rho link; in Singapore, two 400-KV lines to complete the local power transmission network; in Turkey, the first 400-KV link; in Abu Dhabi, two 400-KV links and, in North America, in California and Chicago, new 220-KV and 345-KV links.

In the sector of "special" cables for industrial applications, action to reposition the product mix in higher added value sectors has continued. In particular, important supply contracts were acquired in the Railways sector, such as the agreement with Alstom to supply cables for China's first high-speed trains, the development of business in the Wind-farm sector, especially in North America, and growth in the Crane sector.



**Telecom**

Sales in the Telecom business amounted to Euros 243.6 million, an increase compared to the corresponding period of 2005 (+25.8%), thus confirming the growing trend of investments in the sector begun in the second half of 2005. In the Optical cables sector, the improvement in performance was due mainly to higher sales in North America, South America and Asia-Pacific, while, in the Copper cables sector, the increase in sales was driven by the constant demand from the major National Operators (Europe, South America and Asia Pacific).

**Sales by Geographical Area**

€/Mio	1H 2006	1H 2005	Var.
Europe	1,662.2	1,271.6	+ 30%
North America	348.4	228.7	+ 52%
South America	208.0	137.8	+ 50%
Asia Pacific	226.3	149.0	+ 51%
Other	4.2	39.0	- 89.2%
<b>Total</b>	<b>2,449.1</b>	<b>1,826.1</b>	<b>+34.1%</b>

The breakdown of sales by geographical area shows Prysmian's capacity to achieve growth not only in the traditional key markets of Europe, which, with sales of Euros 1,662.2 million (+30% compared to June 30, 2005) represent 67.8% of total sales, but also in emerging nations which offer higher development opportunities, like those in Asia (sales +51% compared to the same period of 2005) and South America (+50%). The increased geographical diversification has strengthened Prysmian's vocation as a multinational company that seeks to augment its competitiveness worldwide.

**ECONOMIC RESULTS**

Recurring EBITDA (including Prysmian Srl results) of the six-month period amounted to Euros 210.6 million (+74% compared to the first six months of 2005), confirming the company's solid positioning on the market. The Energy business reported a recurring EBITDA of Euros 186.5 million (+74.5% compared to June 30, 2005); note should also be taken of the increase in the Telecom business, with a recurring EBITDA of Euros 24.7 million, a gain of 196.9% compared to the corresponding period of 2005.

EBITDA of the first half of 2006 amounted to Euros 193.2 million (+61% compared to the first half of 2005). There was also an increase in EBIT which, during the first half of 2006, rose by 89.7% compared to 2005, reaching Euros 141.3 million, compared to Euros 74.5 million in 2005.

The improvement in the operating results is the result of the continuation of the policies and initiatives launched in 2005, after the changeover to the new shareholder Goldman Sachs. In particular:

- growth in all the strategic business sectors and improvement of the product mix;
- focus on areas of business with higher added value and a greater technological content (for example, "special cables" for the industrial sector, like the "umbilicals" for the Oil & Gas industry);
- further improvement in operating efficiency and further reduction of costs.

Another significant factor is the company's capacity to react to the marked increase in the prices of raw materials, both in terms of profitability, and in terms of managing the working capital and the related level of debt, which declined after the transfer of ownership and is kept under control, despite the increase in metal prices reported since the beginning of the year.

The Net Financial Position at June 30, 2006 amounted to Euros 901.4 million. The effects deriving from the marked increase in the cost of strategic raw materials were largely offset by the initiatives put in place by management. At December 31, 2005, the net financial position amounted to Euros 839.1 million.

The Net Result for the six-month period amounted to Euros 73.2 million. Despite the fact that this figure cannot be compared with the result in 2005, since the balance sheet situation in 2006 reflects the LBO structure for the transaction which led to the changeover of control to Goldman Sachs, the net result for the first half of 2006 shows a growing trend, just one year after the transaction.

**Prysmian Cables & Systems**

*Prysmian Cables & Systems, the name acquired by Pirelli Cavi after it was acquired by Goldman Sachs Capital Partners in 2005, is a world leader in the sector of cables and systems for energy and telecommunications. Present in 41 countries in the 5 continents, with more than 12,000 employees and 54 production facilities located in 21 different countries, in 2005 Prysmian generated sales of Euros 3.75 billion.*

For further information, please contact:

Communication Department - Press Office

Lorenzo Caruso, tel +39-02-6449-51534, cell +39-349-766 8006, e-mail: [lorenzo.caruso@prysmian.com](mailto:lorenzo.caruso@prysmian.com)

Sara Canciani, tel +39-02-6449 2928, e-mail: [sara.canciani@prysmian.com](mailto:sara.canciani@prysmian.com)

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Topic of Interest \*:

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Country of Interest \*:

United States

#### Communications Cables and Systems North America

country: United States

address: 246 Stoneridge Drive, 4th Floor, Columbia, SC 29210

phone: +01 (800) 713-5312 ; (803) 951-4800

fax: +01 (803) 808-4117

<http://www.us.prysmian.com>

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ATTN: [jbenthin@intell-group.com](mailto:jbenthin@intell-group.com)

Report Printed: OCT 13 2006

## Overview

### BUSINESS SUMMARY

#### PRYSMIAN COMMUNICATIONS CABLES & SYSTEMS USA, LLC

(FOREIGN PARENT IS PRYSMIAN CAVI E SISTEMI  
TELECOM SRL, ITALY.)700 Industrial Dr  
Lexington, SC 29072

D&amp;B D-U-N-S Number: 08-895-2171

This is a **headquarters** location.  
Branch(es) or division(s) exist.

Telephone: 803 951-4800

Fax: 803 256-7833

Chief executive: MARTIN HANCHARD,  
PRES-CEO-MBR

Year started: 1975

Management  
control: 2005Employs: 250 (UNDETERMINED  
here)History: INCOMPLETE  
SIC: 3357

Line of business: Nonfrs wiredrwng/insltng

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#### D&B's Credit Limit Recommendation

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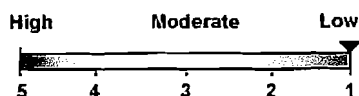
#### Payment Trends Profile

Payment trends and industry benchmarks

[Jump to Payment Trends](#)

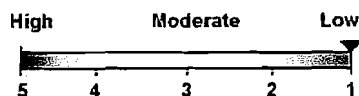
#### Credit Score Class: **1**

Low risk of severe payment delinquency over next 12 months



#### Financial Stress Class: **1**

Low risk of severe financial stress over the next 12 months



#### 12-Month D&B PAYDEX®: **76**

When weighted by dollar amount, payments to suppliers  
average 6 days beyond terms.

D&amp;B Rating: --



### EXECUTIVE SUMMARY

BAH000005

The **Financial Stress Class of 1** for this company shows that firms with this classification had a failure rate of 1.2% (120 per 10,000), which is lower than the average of businesses in D&B's database

The **Credit Score class of 1** for this company shows that 2.0% of firms with this classification paid one or more bills severely delinquent, which is lower than the average of businesses in D&B's database.

Predictive Scores	This Business	Comments
<b>Financial Stress Class</b>	1	Failure Rate lower than the average of businesses in D&B's database
<b>Financial Stress Score</b>	1404	Highest Risk: 1,001; Lowest Risk: 1,875
<b>Credit Score Class</b>	1	Probability of Severely Delinquent Payment is lower than the average of businesses in D&B's database
<b>Credit Score</b>	551	Highest Risk: 101; Lowest Risk: 670
<b>Other Key Indicators</b>		
<b>PAYDEX Scores</b>	6 days beyond terms	Pays more promptly than the average for its industry of 11 days beyond terms
<b>Industry Median</b>	11 days beyond terms	
<b>Present management control</b>	1 year	
<b>UCC Filings</b>	UCC filing(s) are reported for this business	
<b>Public Filings</b>	No record of open Suit(s), Lien(s), or Judgment(s) in the D&B database	
<b>History</b>	Is incomplete	
<b>Special Events</b>	Are reported for this business	

#### CREDIT CAPACITY SUMMARY

#### D&B Rating:--

The blank rating symbol should not be interpreted as indicating that credit should be denied. It simply means that the information available to D&B does not permit us to classify the company within our rating key and that further enquiry should be made before reaching a decision. Some reasons for using a "-" symbol include: deficit net worth, bankruptcy proceedings, insufficient payment information, or incomplete history information. For more information, see the D&B Rating Key.

**# of Employees Total:** 250 (UNDETERMINED here) **Payment Activity:**  
(based on 124 experiences)

**Average High Credit:** \$96,642  
**Highest Credit:** \$5,000,000  
**Total Highest Credit:** \$11,213,600

#### SPECIAL EVENTS

09/13/2006

Parent company is PRYSMIAN CAVI E SISTEMI TELECOM SRL, Italy.

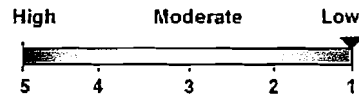
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**Scores** 

#### FINANCIAL STRESS SUMMARY

The Financial Stress Summary Model predicts the likelihood of a firm ceasing business without paying all creditors in full, or reorganization or obtaining relief from creditors under state/federal law over the next 12 months. Scores were calculated using a statistically valid model derived from D&B's extensive data files.

**Financial Stress Class: 1**

Low risk of severe financial stress, such as a bankruptcy, over the next 12 months.

**Incidence of Financial Stress**

Among Businesses with this Class: 1.20% (120 per 10,000)

Average of Businesses in D&B's Database: 2.60% (260 per 10,000)

**Financial Stress National Percentile: 68** (Highest Risk: 1; Lowest Risk: 100)

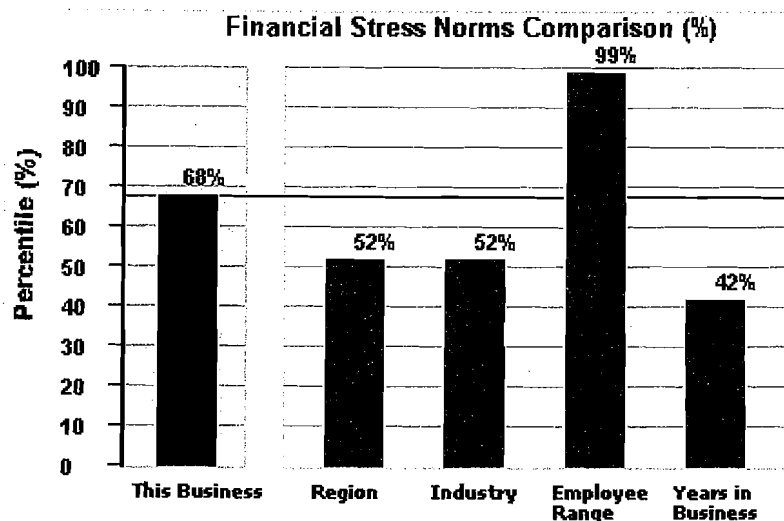
**Financial Stress Score: 1404** (Highest Risk: 1,001; Lowest Risk: 1,875)

The Financial Stress Score of this business is based on the following factors:

- 14% of trade dollars indicate slow payment(s) are present.
- Payment experiences exist for this firm which are greater than 60 days past due.

**Notes:**

- The Financial Stress Class indicates that this firm shares some of the same business and financial characteristics of other companies with this classification. It does not mean the firm will necessarily experience financial stress.
- The Incidence of Financial Stress shows the percentage of firms in a given Class that discontinued operations with loss to creditors. The Average Incidence of Financial Stress is based on businesses in D&B's database and is provided for comparative purposes.
- The Financial Stress National Percentile reflects the relative ranking of a company among all scorable companies in D&B's file.
- The Financial Stress Score offers a more precise measure of the level of risk than the Class and Percentile. It is especially helpful to customers using a scorecard approach to determining overall business performance.
- All Financial Stress Class, Percentile, Score and Incidence statistics are based on sample data from 2004.



Region=SOUTH ATLANTIC  
Industry=MANUFACTURING  
Employee Range=100-499  
Years in Business=1-2

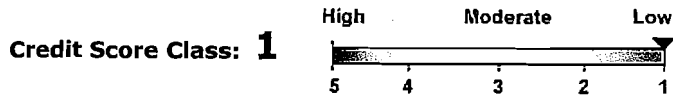
Norms	National %
This Business	68
Region: SOUTH ATLANTIC	52
Industry: MANUFACTURING	52
Employee Range: 100-499	99
Years in Business: 1-2	42

This business has a Financial Stress Percentile that shows:

- Lower risk than other companies in the same region.
- Lower risk than other companies in the same industry.
- Higher risk than other companies in the same employee size range.
- Lower risk than other companies with a comparable number of years in business.

### CREDIT SCORE CLASS SUMMARY

The Credit Score Class predicts the likelihood of a firm paying in a severely delinquent manner (90+ Days Past Terms) over the next twelve months. It was calculated using statistically valid models and the most recent payment information in D&B's files.



Low risk of severe payment delinquency over next 12 months.

### Incidence of Delinquent Payment

Among Companies with this Class: 2.00%

Average Compared to Businesses in D&B's Database: 20.10%

**Credit Score Percentile: 93** (Highest Risk: 1; Lowest Risk: 100)

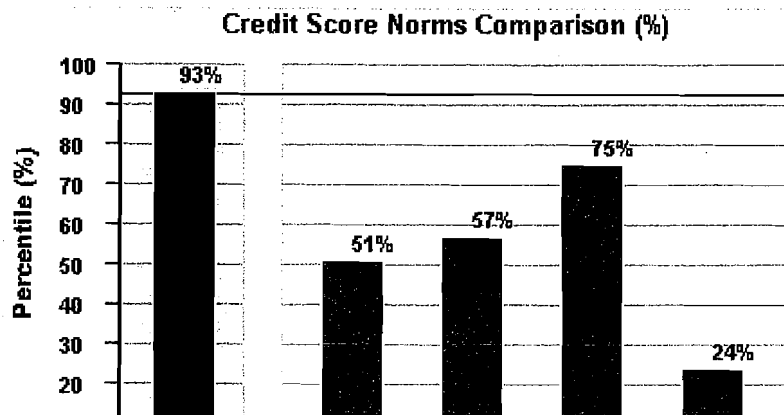
**Credit Score: 551** (Highest Risk: 101; Lowest Risk: 670)

The Credit Score of this business is based on the following factors:

- No record of open lien(s), or judgment(s) in the D&B files.
- Business does not own facilities.

### Notes:

- The Credit Score Class indicates that this firm shares some of the same business and payment characteristics of other companies with this classification. It does not mean the firm will necessarily experience delinquency.
- The Incidence of Delinquent Payment is the percentage of companies with this classification that were reported 90 days past due or more by creditors. The calculation of this value is based on an inquiry weighted sample.
- The Percentile ranks this firm relative to other businesses. For example, a firm in the 80th percentile has a lower risk of paying in a severely delinquent manner than 79% of all scorable companies in D&B's files.
- The Credit Score offers a more precise measure of the level of risk than the Class and Percentile. It is especially helpful to customers using a scorecard approach to determining overall business performance.
- All Credit Class, Percentile, Score and Incidence statistics are based on sample data from 2004.



Norms	National %
This Business	93
Region: <b>SOUTH ATLANTIC</b>	51
Industry: <b>MANUFACTURING</b>	57
Employee Range: <b>100-499</b>	75



Years in Business:  
1-2

24

Region=SOUTH ATLANTIC  
Industry=MANUFACTURING  
Employee Range=100-499  
Years in Business=1-2

This business has a Credit Score Percentile that shows:

- Lower risk than other companies in the same region.
- Lower risk than other companies in the same industry.
- Lower risk than other companies in the same employee size range.
- Lower risk than other companies with a comparable number of years in business.

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## Payments

### PAYMENT TRENDS

**Total Payment Experiences in D&B's File:** 124

**Current PAYDEX is:** 76 equal to 6 days beyond terms

**Payments Within Terms:** 76%  
(not dollar weighted)

**Industry Median is:** 73 equal to 11 days beyond terms

**Total Placed For Collection:** 1

**Payment Trend currently is:**  **unchanged,** compared to payments three months ago

**Average Highest Credit:** \$96,642

**Largest High Credit:** \$5,000,000

Indications of slowness can be the result of dispute over merchandise, skipped invoices, etc. Accounts are sometimes placed for collection even though the existence or amount of the debt is disputed.

**Highest Now Owning:** \$3,000,000

**Highest Past Due:** \$100,000

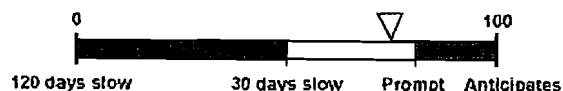
### PAYDEX Scores

Shows the D&B PAYDEX scores as calculated on the most recent 3 months and 12 months of payment experiences.

The D&B PAYDEX is a unique, dollar weighted indicator of payment performance based on up to payment experiences as reported to D&B by trade references. A detailed explanation of how to read and interpret PAYDEX scores can be found at the end of this report.

#### 3-Month D&B PAYDEX: 77

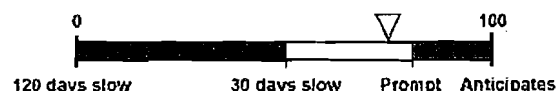
When weighted by dollar amount, payments to suppliers average 5 days beyond terms.



Based on payments collected over last 3 months.

#### 12-Month D&B PAYDEX: 76

When weighted by dollar amount, payments to suppliers average 6 days beyond terms.



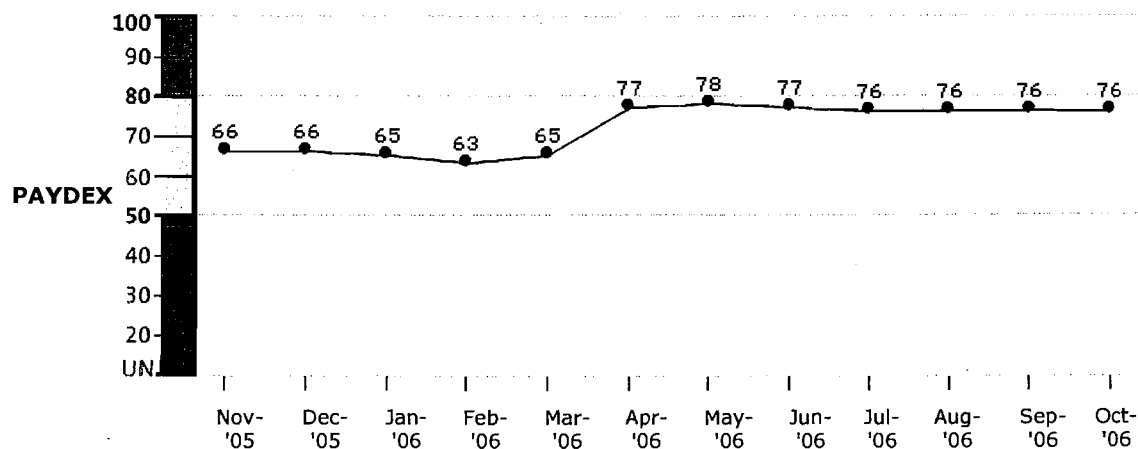
Based on payments collected over last 12 months.



**PAYDEX Yearly Trend****12 Month PAYDEX Scores Comparison to Industry**

	11/05	12/05	1/06	2/06	3/06	4/06	5/06	6/06	7/06	8/06	9/06	10/06
<b>This Business</b>	66	66	65	63	65	77	78	77	76	76	76	76
<b>Industry Quartiles</b>												
Upper		77			77			77			77	
Median		73			73			73			73	
Lower		67			67			68			68	

Shows the trend in D&B PAYDEX scoring over the past 12 months.

**Last 12 Months**

Based on payments collected over the last 12 months.

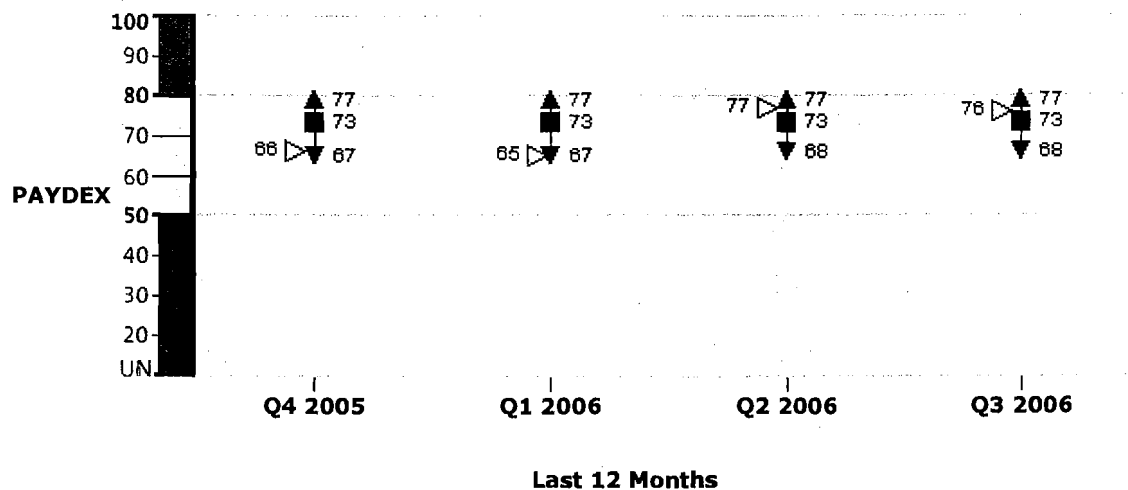
- Current PAYDEX for this Business is 76, or equal to 6 days beyond terms
- The 12-month high is **78**, or equal to 3 days beyond terms
- The 12-month low is **63**, or equal to 20 days beyond terms

**PAYDEX Comparison to Industry**

Shows PAYDEX scores of this Business compared to the Primary Industry from each of the last four quarters. The Primary Industry is Nonfrs wiredrng/insltng, based on SIC code 3357.

**Quarterly PAYDEX Scores Comparison to Industry**

Previous Year					Current Year				
	12/04	3/05	6/05	9/05		12/05	3/06	6/06	9/06
<b>This Business</b>	64	63	64	65	<b>This Business</b>	66	65	77	76
<b>Industry Quartiles</b>					<b>Industry Quartiles</b>				
Upper	77	76	77	77	Upper	77	77	77	77
Median	72	72	72	73	Median	73	73	73	73
Lower	66	66	66	67	Lower	67	67	68	68



Based on payments collected over the last 4 quarters.

#### Score Comparison Key:

▷ This Business

▲ Industry upper quartile

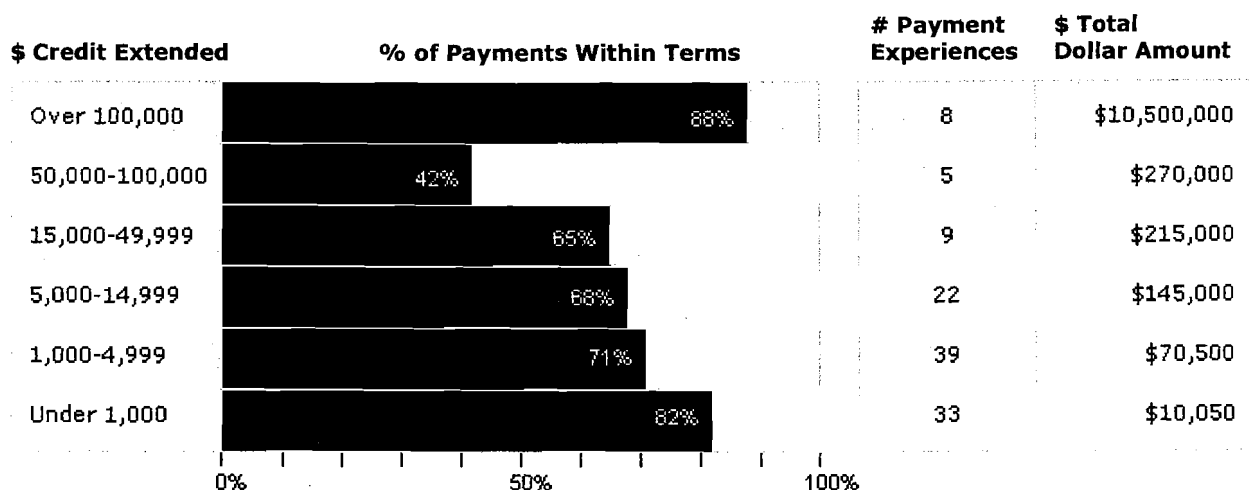
■ Industry median

▼ Industry lower quartile

- Current **PAYDEX** for this Business is **76**, or equal to 6 days beyond terms
- The present industry **median score** is **73**, or equal to 11 days beyond terms.
- Industry upper quartile represents the performance of the payers in the 75th percentile
- Industry lower quartile represents the performance of the payers in the 25th percentile

#### Payment Habits

For all payment experiences within a given amount of credit extended, shows the percent that this Business paid within terms. Provides number of experiences used to calculate the percentage, and the total dollar value of the credit extended.



Based on payments collected over the last 12 months.

Payment experiences reflect how bills are met in relation to the terms granted. In some instances, payment beyond terms can be the result of disputes over merchandise, skipped invoices, etc.

**PAYMENT SUMMARY**

The Payment Summary section reflects payment information in D&B's file as of the date of this report.

There are 124 payment experiences in D&B's file for the most recent 12 months, with 89 experiences reported during the last three month period.

Below is an overview of the company's dollar-weighted payments, segmented by its suppliers' primary industries:

	Total Rcv'd (#)	Total Dollar Amts (\$)	Largest High Credit (\$)	Within Terms (%)	Days Slow <31 31-60 61-90 90> (%)			
Top industries:								
Nonclassified	14	676,650	600,000	53	47	0	0	0
Truck rental/leasing	9	33,500	10,000	89	11	0	0	0
Electric services	7	114,750	100,000	96	0	4	0	0
Whol office equipment	7	22,750	20,000	98	0	1	1	0
Radiotelephone commun	6	15,000	10,000	46	17	37	0	0
Telephone communictns	6	6,050	2,500	100	0	0	0	0
Whol electrical equip	5	80,100	60,000	82	9	0	9	0
Trucking non-local	4	19,000	15,000	48	12	1	0	39
Whol industrial suppl	3	60,050	55,000	0	100	0	0	0
Executive office	3	600	500	100	0	0	0	0
Mfg alum extrud prdts	2	8,000,000	5,000,000	100	0	0	0	0
Paperboard mill	2	402,500	400,000	49	1	50	0	0
Hvy const eqpt rental	2	55,000	55,000	50	50	0	0	0
Short-trm busn credit	2	11,000	10,000	95	5	0	0	0
Misc equipment rental	2	10,500	10,000	100	0	0	0	0
Mfg industrial gases	2	8,500	7,500	50	50	0	0	0
Whol metal	2	6,000	5,000	92	8	0	0	0
Whol industrial equip	2	6,000	5,000	58	42	0	0	0
Whol chemicals	2	2,550	2,500	2	98	0	0	0
Help supply service	2	3,500	2,500	100	0	0	0	0
Data processing svcs	2	5,000	2,500	75	25	0	0	0
Whol durable goods	2	1,000	500	100	0	0	0	0
Reg misc coml sector	2	200	100	100	0	0	0	0
Copper roll/drawing	1	800,000	800,000	50	50	0	0	0
Mfg alum sheet/foil	1	400,000	400,000	50	50	0	0	0
Custom compounding	1	200,000	200,000	0	100	0	0	0
Railroad	1	50,000	50,000	0	50	0	0	50
Mfg plastics/resins	1	50,000	50,000	50	0	50	0	0
Nonferrous wiredrawng	1	45,000	45,000	50	50	0	0	0
Aluminum roll/drawing	1	30,000	30,000	100	0	0	0	0
Whol const/mine equip	1	20,000	20,000	50	50	0	0	0
Misc business service	1	15,000	15,000	50	50	0	0	0
Mfg plastic sheet/flm	1	10,000	10,000	0	100	0	0	0
Legislative body	1	7,500	7,500	100	0	0	0	0
Mfg motors/generators	1	7,500	7,500	100	0	0	0	0
Whol refrig equip	1	5,000	5,000	0	50	0	50	0
Gas production/distrib	1	5,000	5,000	100	0	0	0	0

Mfg industry furnaces	1	5,000	5,000	0	100	0	0	0
Mfg air/gas compress	1	5,000	5,000	0	100	0	0	0
Whol petroleum prdts	1	2,500	2,500	100	0	0	0	0
Thread mill	1	2,500	2,500	100	0	0	0	0
Arrange cargo transpt	1	2,500	2,500	100	0	0	0	0
Mfg valve/pipe fittng	1	2,500	2,500	0	100	0	0	0
Mfg photograph equip	1	1,000	1,000	50	0	50	0	0
Mfg refrig/heat equip	1	1,000	1,000	100	0	0	0	0
Misc general gov't	1	750	750	100	0	0	0	0
Whol electronic parts	1	750	750	100	0	0	0	0
Mfg process controls	1	750	750	100	0	0	0	0
Whol plumb/hydraulics	1	500	500	0	50	50	0	0
Photocopying service	1	500	500	0	100	0	0	0
Misc publishing	1	100	100	100	0	0	0	0
Periodical-print/publ	1	0	0	0	0	0	0	0

**Other payment categories:**

Cash experiences	2	500	500					
Payment record unknown	2	2,550	2,500					
Unfavorable comments	0	0	0					

**Placed for collections:**

With D&B	0	0	0					
Other	1	N/A	0					
Total in D&B's file	124		5,000,000					

The highest **Now Owes** on file is \$3,000,000 The highest **Past Due** on file is \$100,000

Accounts are sometimes placed for collection even though the existence or amount of the debt is disputed. Indications of slowness can be result of dispute over merchandise, skipped invoices, etc.

**PAYMENT DETAILS****Detailed payment history**

Date Reported (mm/yy)	Paying Record	High Credit (\$)	Now Owes (\$)	Past Due (\$)	Selling Terms	Last Sale Within (months)
10/06	Ppt	50	0	0		1 mo
09/06	Ppt	100,000	100,000	0		1 mo
	Ppt	60,000	30,000	0	N30	1 mo
	Ppt	30,000	0	0		2-3 mos
	Ppt	25,000	5,000	0		1 mo
	Ppt	10,000	5,000	0		1 mo
	Ppt	5,000	2,500	0		1 mo
	Ppt	5,000	1,000	0		1 mo
	Ppt	5,000	2,500	0		1 mo
	Ppt	2,500	2,500	0		1 mo
	Ppt	2,500	2,500	0		1 mo
	Ppt	2,500	0	0		1 mo
	Ppt	2,500	0	0		4-5 mos
	Ppt	2,500	0	0		1 mo

	Ppt	1,000	500	0		1 mo
	Ppt	1,000	750	0	Lease Agreeemnt	1 mo
	Ppt	1,000	1,000	0		1 mo
	Ppt	1,000	250	0		1 mo
	Ppt	750	0	0	N30	2-3 mos
	Ppt	500	0	0		1 mo
	Ppt	500	250	0		1 mo
	Ppt	500	0	0		2-3 mos
	Ppt	250	0	0		2-3 mos
	Ppt	250	50	0	Lease Agreeemnt	1 mo
	Ppt-Slow 30	15,000	15,000	250		1 mo
	Ppt-Slow 30	2,500	0	0		2-3 mos
	Ppt-Slow 30	1,000	1,000	0		1 mo
	Ppt-Slow 60	400,000	200,000	55,000		1 mo
	Ppt-Slow 60	1,000	500			2-3 mos
	Ppt-Slow 60	250	0	0		4-5 mos
	Ppt-Slow 90	500	250	0		1 mo
	Slow 15	1,000	1,000	1,000		1 mo
	Slow 30	2,500	2,500	2,500		1 mo
	Slow 30	1,000	0	0		2-3 mos
	Slow 60	5,000	2,500	2,500	N30	2-3 mos
	Slow 30-90	5,000	1,000	1,000		1 mo
	Slow 30-120	50,000	50,000	50,000		1 mo
08/06	Ppt	10,000				1 mo
	Ppt	5,000	100	0		1 mo
	Ppt	5,000	750	0	N30	1 mo
	Ppt	2,500	0	0		1 mo
	Ppt	2,500	2,500	250		1 mo
	Ppt	2,500	50	0		1 mo
	Ppt	2,500	0	0		4-5 mos
	Ppt	2,500	0	0		1 mo
	Ppt	1,000	0	0		1 mo
	Ppt	1,000	500	0		1 mo
	Ppt	1,000	500	0		1 mo
	Ppt	1,000	0	0		1 mo
	Ppt	1,000	1,000	500		1 mo
	Ppt	750	0	0	N30	4-5 mos
	Ppt	500	0	0		1 mo
	Ppt	500	0	0		1 mo
	Ppt	500	500	0		1 mo
	Ppt	50	50	0		1 mo
	Ppt	50	50	0		1 mo
	Ppt	0	0	0		4-5 mos
	Ppt-Slow 30	600,000	0	0		4-5 mos
	Ppt-Slow 30	45,000	45,000	10,000	N30	1 mo
	Ppt-Slow 30	30,000	0	0		1 mo
	Ppt-Slow 30	1,000	500	0		1 mo
	Ppt-Slow 60	10,000	2,500	0		1 mo
	Slow 5	5,000	0	0	N30	4-5 mos
	Slow 5	2,500	1,000	0		1 mo
	Slow 30	200,000	80,000	70,000	N30	1 mo
	Slow 30	55,000	45,000	30,000	N30	1 mo

	Slow 30	2,500	0	0		2-3 mos
	Slow 30-60	500	0	0		2-3 mos
07/06	Ppt	3,000,000	3,000,000	0		1 mo
	Ppt-Slow 30	5,000	0	0	N30	4-5 mos
	Ppt-Slow 60	50,000	40,000	25,000		1 mo
	(072)	750				1 mo
	Satisfactory.					
	(073)	50				4-5 mos
	Satisfactory.					
06/06	Ppt	5,000	5,000	0		1 mo
	Ppt-Slow 45	500	0	0		4-5 mos
	Slow 5	10,000	0	0		4-5 mos
	(077)	0	0	0		1 mo
	Satisfactory.					
	(078)	0	0	0		1 mo
	Satisfactory.					
04/06	Ppt-Slow 30	2,500	0	0		1 mo
02/06	(080)	750	750	750		

Placed for collection.

Accounts are sometimes placed for collection even though the existence or amount of the debt is disputed.

Payment experiences reflect how bills are met in relation to the terms granted. In some instances payment beyond terms can be the result of disputes over merchandise, skipped invoices etc.

Each experience shown is from a separate supplier. Updated trade experiences replace those previously reported.

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## Public Filings

### PUBLIC FILINGS

The following data includes both open and closed filings found in D&B's database on the subject company.

Record Type	# of Records	Most Recent Filing Date
Bankruptcy Proceedings	0	-
Judgments	0	-
Liens	0	-
Suits	0	-
UCC's	8	06/07/2005

The following Public Filing data is for information purposes only and is not the official record. Certified copies can only be obtained from the official source.

### UCC FILINGS

**Collateral:** Leased Equipment  
**Type:** Original  
**Sec. party:** PACIFIC RIM CAPITAL, INC., IRVINE, CA  
**Debtor:** PIRELLI POWER CABLES AND SYSTEMS USA, LLC  
**Filing number:** 1158361 1  
**Filed with:** SECRETARY OF STATE/UCC DIVISION, DOVER, DE  
**Date filed:** 11/02/2001

**Latest Info Received:** 02/01/2002

**Collateral:** Leased Oil, gas and minerals - Leased Equipment  
**Type:** Assignment  
**Sec. party:** PACIFIC RIM CAPITAL, INC., IRVINE, CA  
**Assignee:** PULLMAN BANK AND TRUST COMPANY, CHICAGO, IL  
**Debtor:** PIRELLI POWER CABLES AND SYSTEMS USA, LLC.  
**Filing number:** 2014064  
**Filed with:** SECRETARY OF STATE/UCC DIVISION, DOVER, DE

**Date filed:** 12/14/2001  
**Latest Info Received:** 02/20/2002  
**Original UCC filed date:** 11/02/2001  
**Original filing no.:** 11583611

**Collateral:** Leased Business machinery/equipment including proceeds and products  
**Type:** Original  
**Sec. party:** IOS CAPITAL, MACON, GA  
**Debtor:** PIRELLI CABLE & SYSTEMS LLC, COLUMBIA, SC  
**Filing number:** 3302316 8  
**Filed with:** SECRETARY OF STATE/UCC DIVISION, DOVER, DE

**Date filed:** 11/12/2003  
**Latest Info Received:** 12/16/2003

**Collateral:** Leased Equipment  
**Type:** Original  
**Sec. party:** SUSQUEHANNA PATRIOT COMMERCIAL LEASING COMPANY, INC., POTTSTOWN, PA  
**Debtor:** PIRELLI COMMUNICATIONS CABLES AND SYSTEMS USA, LLC  
**Filing number:** 5172957 4  
**Filed with:** SECRETARY OF STATE/UCC DIVISION, DOVER, DE

**Date filed:** 06/07/2005  
**Latest Info Received:** 06/30/2005

**Collateral:** Leased Equipment  
**Type:** Original  
**Sec. party:** PACIFIC RIM CAPITAL, INC., IRVINE, CA  
**Debtor:** PIRELLI POWER CABLES AND SYSTEMS USA, LLC  
**Filing number:** 1158362 9  
**Filed with:** SECRETARY OF STATE/UCC DIVISION, DOVER, DE

**Date filed:** 11/02/2001  
**Latest Info Received:** 02/01/2002

**Type:** Original  
**Sec. party:** SAFECO CREDIT CO. INC. DBA SAFELINE LEASING, REDMOND, WA  
**Debtor:** PIRELLI CABLES & SYSTEMS, COLUSA, CA  
**Filing number:** 0019660301  
**Filed with:** SECRETARY OF STATE/UCC DIVISION, SACRAMENTO, CA

**Date filed:** 07/10/2000  
**Latest Info Received:** 07/18/2000

**Type:** Original  
**Sec. party:** NEWCOURT COMMUNICATIONS FINANCE CORPORATION, PARSIPPANY, NJ  
**Debtor:** PIRELLI CABLE & SYSTEMS LLC, COLUMBIA, SC  
**Filing number:** 0009860642  
**Filed with:** SECRETARY OF STATE/UCC DIVISION, SACRAMENTO, CA

**Date filed:** 04/05/2000  
**Latest Info Received:** 04/11/2000

**Type:** Continuation  
**Sec. party:** YALE FINANCIAL SERVICES, INC., FLEMINGTON, NJ  
**Debtor:** PIRELLI CABLE CORPORATION

**Filing number:** 991109-161656A  
**Filed with:** SECRETARY OF STATE/UCC DIVISION, COLUMBIA, SC  
**Date filed:** 11/09/1999  
**Latest Info Received:** 12/06/1999  
**Original UCC filed date:** 04/13/1995  
**Original filing no.:** 110707A

The public record items contained in this report may have been paid, terminated, vacated or released prior to the date this report was printed.

#### GOVERNMENT ACTIVITY

##### Activity summary

Borrower (Dir/Guar):	NO
Administrative debt:	NO
Contractor:	NO
Grantee:	NO
Party excluded from federal program(s):	NO

##### Possible candidate for socio-economic program consideration

Labor surplus area:	N/A
Small Business:	YES (2006)
8(A) firm:	N/A

The details provided in the Government Activity section are as reported to Dun & Bradstreet by the federal government and other sources.

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## History & Operations

### HISTORY

The following information was reported **09/13/2006**:

**Officer(s):** MARTIN HANCHARD, PRES-CEO-MBR  
PAOLO BAZZONI, VP-CFO-MBR

**DIRECTOR(S):** THE OFFICER(S)

A Limited Liability Company registered in the state of Delaware on March 17, 1998.

Business started Prior to 1975. Present control succeeded 2005.

On 9/21/05 Pirelli Communications Cables and Systems USA, LLC is a limited liability company registered in the state of Delaware in 1998 and is in good standing. The predecessor company, Pirelli Cable & Systems LLC was a wholly-owned subsidiary of Pirelli North America Inc since 1978. During the company's recent restructuring, its two operations - communications and power were split into two distinct business groups - Pirelli Communications Cables and Systems USA, LLC and Pirelli Power Cables and Systems USA, LLC. Both are wholly-owned subsidiaries of Pirelli North America Inc, DUNS #01-806-2906. The ultimate parent is Pirelli SpA, Milan, Italy, DUNS #42-819-2694.

On 9/21/05 Pirelli Communications Cables and Systems LLC changed its name into Prysmian Communications Cables and Systems LLC as a result of the acquisition by Goldman Sachs of the worldwide Energy and Communications cables and systems activities occurred in July 2005.

MARTIN HANCHARD. Antecedents are undetermined.

PAOLO BAZZONI. Antecedents are undetermined.



## OPERATIONS

09/13/2006

**Description:** Subsidiary of PRYSMIAN CAVI E SISTEMI TELECOM SRL, .

( Foreign Parent is PRYSMIAN CAVI E SISTEMI TELECOM SRL, Italy. ) Duns# 43-954-1645.

Operates as engaged in drawing or insulating of nonferrous wire, communication wire, fiber optic cable (insulated) and building wire or cable (100%).

**TERMS:** Primarily net 30 day terms. Sells to communication utilities and industrial accounts.  
**Territory :** Nationwide.

Nonseasonal. Competition active.

**Employees:** 250 which includes officer(s). UNDETERMINED employed here.

**Facilities:** Shares premises in a multi story building.

**Location:** Commercial section on well traveled street.

**Branches:** This business has multiple branches, detailed branch/division information is available in Dun & Bradstreet's linkage or family tree products.

## SIC & NAICS

### SIC:

Based on information in our file, D&B has assigned this company an extended 8-digit SIC. D&B's use of 8-digit SICs enables us to be more specific to a company's operations than if we use the standard 4-digit code.

The 4-digit SIC numbers link to the description on the Occupational Safety & Health Administration (OSHA) Web site. Links open in a new browser window.

33570000	Nonferrous wiredrawing and insulating
33570100	Communication wire
33570102	Fiber optic cable (insulated)
33579905	Building wire and cable, nonferrous

### NAICS:

332618	Other Fabricated Wire Product Manufacturing
335921	Fiber Optic Cable Manufacturing
335921	Fiber Optic Cable Manufacturing
335929	Other Communication and Energy Wire Manufacturing

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## Banking & Finance

### BANKING

**BANKING:** Bank of New York, 1 Wall Street, New York, NY; Midlantic Banks Inc, Metro Park Plaza, Edison, NJ; and Swiss Bank Corp, 4 World Trade Center, New York, NY

### KEY BUSINESS RATIOS

D&B has been unable to obtain sufficient financial information from this company to calculate business ratios. Our check of additional outside sources also found no information available on its financial performance. To help you in this instance, ratios for other firms in the same industry are provided below to support your analysis of this business.

Based on this number of establishments: 26

**Industry Norms based on 26 establishments**

	<b>This Business</b>	<b>Industry Median</b>	<b>Industry Quartile</b>
<b>Profitability</b>			
<b>Return on Sales</b>	UN	3.1	UN
<b>Return on Net Worth</b>	UN	12.9	UN
<b>Short-Term Solvency</b>			
<b>Current Ratio</b>	UN	2.6	UN
<b>Quick Ratio</b>	UN	1.2	UN
<b>Efficiency</b>			
<b>Assets Sales</b>	UN	46.0	UN
<b>Sales / Net Working Capital</b>	UN	3.9	UN
<b>Utilization</b>			
<b>Total Liabs / Net Worth</b>	UN	62.8	UN

UN = Unavailable

**FINANCE**

**09/13/2006**

As of September 13, 2006, attempts to contact the management of this business have been unsuccessful. Outside sources confirmed name and location of the business.

**CUSTOMER SERVICE**

If you have questions about this report, please call our Customer Resource Center at 1.800.234.3867 from anywhere within the U.S. If you are outside the U.S. contact your local D&B office.

\*\*\* Additional Decision Support Available \*\*\*

Additional D&B products, monitoring services and specialized investigations are available to help you evaluate this company or its industry. Call Dun & Bradstreet's Customer Resource Center at 1.800.234.3867 from anywhere within the U.S. or visit our website at [www.dnb.com](http://www.dnb.com).

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# Secretary of State Search

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### Office of the South Carolina Secretary of State

Business Filings Division

Information for:

**PRYSMIAN COMMUNICATIONS CABLES AND SYSTEMS USA, LLC**

[Check Charities Database](#)

Note\*\*\* This online database was last updated on 10/13/2006 see our Disclaimer

**DOMESTIC / FOREIGN:**

Foreign

**STATUS:**

Good Standing

**STATE OF INCORPORATION /**

DELAWARE

**ORGANIZATION:**

For Profit

### REGISTERED AGENT INFORMATION

**REGISTERED AGENT NAME:**

CORPORATE SERVICES CORP

**ADDRESS:**

5000 THURMOND MALL BLVD

**CITY:**

COLUMBIA

**STATE:**

SC

**ZIP:**

29201

**SECOND ADDRESS:**

**FILE DATE:**

03/17/1998

**EFFECTIVE DATE:**

03/17/1998

**DISSOLVED DATE:**

### CORPORATION HISTORY RECORDS

Code	File Date	Comment	Document
FOREIGN AMENDMENT	09/27/2005	CHG NAME FROM PIRELLI COMMUNICATIONS CABLES AND SYSTEMS USA,	FILM
LLC - ANNUAL REPORT	04/15/2004	LLC ANNUAL REPORT-2004	FILM
LLC - ANNUAL REPORT	04/17/2003	LLC ANNUAL REPORT-2003 TYE 12/31	FILM
Agent	09/03/2002	CHANGE AGENT ADDRESS	FILM
AMENDMENT(DOMESTIC)	04/01/2002	ANNUAL REPORT/2002 TYE 12/31	FILM
FOREIGN AMENDMENT	07/24/2001	CH NM FR-PIRELLI CABLES AND SYSTEMS LLC	FILM
AMENDMENT(DOMESTIC)	05/02/2001	ANNUAL REPORT-2001	FILM
AMENDMENT(DOMESTIC)	03/17/2000	ANNUAL REPORT-2000	FILM
AMENDMENT(DOMESTIC)	01/11/2000	ANNUAL REPORT-1999	FILM
Agent	06/11/1999	Agent Change of Address	FILM

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BAH000006



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### Office of the South Carolina Secretary of State

Business Filings Division

Information for:

**PRYSMIAN COMMUNICATIONS CABLES AND SYSTEMS USA, LLC**

[Check Charities Database](#)

Note\*\*\* This online database was last updated on 10/13/2006 see our Disclaimer

DOMESTIC / FOREIGN:

Foreign

STATUS:

Good Standing

STATE OF INCORPORATION /

DELAWARE

ORGANIZATION:

For Profit

### REGISTERED AGENT INFORMATION

REGISTERED AGENT NAME:

CORPORATE SERVICES CORP

ADDRESS:

5000 THURMOND MALL BLVD

CITY:

COLUMBIA

STATE:

SC

ZIP:

29201

SECOND ADDRESS:

FILE DATE:

03/17/1998

EFFECTIVE DATE:

03/17/1998

DISSOLVED DATE:

### CORPORATION HISTORY RECORDS

Code	File Date	Comment	Document
FOREIGN LIMITED LIABILITY COMPANY	03/17/1998	FOREIGN LIMITED LIABILITY (AT WILL)	FILM

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